

**Analgesic and Anti-Inflammatory**  
**Activity of**  
**MUTSANGAN ILAI CHOORANAM**  
**&**  
**Broncho Dilator-Anti-Spasmodic, Anti – Histaminic&**  
**Anti-Bacterial Activity of**  
**KARPOORA SILAJITHU PARPAM**  
**(DISSERTATION SUBJECT)**



**For the partial fulfillment of requirements to the Degree of**  
**DOCTOR OF MEDICINE (SIDDHA)**  
**(GUNAPADAM BRANCH)**

**GOVERNMENT SIDDHA MEDICAL COLLEGE**

**Tirunelveli – 627002**

**(Affiliated to The Tamilnadu Dr.M.G.R. Medical University, Chennai.32.)**

**APRIL – 2013**



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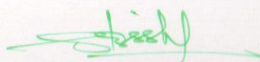
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*This programme focussed on* **"INTERLINK BETWEEN THE PLANTS AND THE PLANETS,  
HERBAL REMEDY FOR TUBERCULOSIS & GENERAL GUIDELINES FOR RESEARCH AND EVALUATION OF  
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## 1. INTRODUCTION

SIDDHA science is one of the ancient traditional medicinal system in the world. This medicinal system is followed by Dravidians and it is popular all over the world.

This medicinal science is written in palm leaves in the form of Tamil songs and proverbs and was used by people and it flourished. In those days Siddha practitioners were called by the name of Siddhars, since they attained <sup>11</sup>eight super natural powers (ASHTAMA SIDDHIS) namely,

1. அனிமா 2.மகிமா, 3.இலகிமா, 4.கரிமா, 5.பிராப்த்தி, 6.பிரகாமியம், 7.வாசித்துவம், 8.ஈசத்துவம்.

Siddhars practiced in three states 1.VAITHIAM 2.VATHAM 3.YOGAM

### 1. VAITHIAM (MEDICINE)

The medicines for all the living organisms and for all the ailments in the world are prepared by siddhars from the nature. The drugs used by siddhars were made from the substances occurring in nature such as,

- Herbal products (தாவரப் பொருட்கள்)

- Inorganic substances (தாதுப்பொருட்கள்)

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<sup>11</sup> Thotrakirama Araitchium Siddha Marutuva Varalarum- Dr.K.S.Uththamarayan .HPIM Page No:426

- Animal products (சீவப்பொருட்கள்)

## 2 .VATHAM (ALCHAMY) AND 3. YOGAM (YOGA & PHILOSOPHY)

The above said two techniques were followed by them to protect themselves from aging (நுரை, திரை, மூப்பு, பிணி, சாக்காடு).

Siddhars found out the conditions of disease with the help of the

<sup>2</sup>THREE KEY HUMOURS (VATHAM, PITHAM, KABAM) and

<sup>3</sup>EIGHT TYPE OF EXAMINATIONS

(1.நா,2.நிறம்,3.மொழி,4.விழி,5.தொடூணர்வு,6.மலம்,7.மூத்திரம்,8.நாடி),

(which are the key factors to maintain the equilibrium of the body).

They handled Siddha medicines in 2 types called 32-Internal medicines and 32- External medicines. Siddhars mostly used single herb remedy to cure any disease.

According to the above said siddha quotation it is best to give the medicine obtained from the plants to cure the diseases. If not cured we can use metal and mineral preparations.

Keeping this in mind the author selected “MUTSANGAN ILAI CHOORANAM” to cure AZHAL KEEL VAYU (OSTEO ARTHRITIS) which is prevalent in aged people.

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<sup>12, 3</sup> - Siddha Maruthuvanga Surukkam - Dr.K.S.Uththamarayan .HPIM : Page no:9

## AIM AND OBJECTIVES

The moto of this dissertation is to prove that the drug ‘MUTSANGAN ILAI CHOORANAM’ is a natural effective remedy for the disease “AZHAL KEEL VAYU”. It is one of the vadha diseases in siddha system of medicine and can be compared to the “OSTEO ARTHRITIS” in modern medicine. This is one of the non-inflammatory joint diseases. This is a most common joint disorder with knee involvement a major cause of disability. The disease is also termed as degenerative joint disease of human being.

<sup>4</sup>Mostly the aged people are affected by this desease. 85% of 65 years old people have radiographic evidence. 20% have symptomatic evidence. In random survey people affected by Azhal keel vayu between the age of 40 to 60 years, the prevalence is 30% and above age of 60 years it is 68%, below 40 years of age is only 2%.

In the study Author selected MUTSANGAN ILAI CHOORANAM for the study of AZHAL KEEL VAYU . The chooranam was prepared based on the <sup>2</sup>Reference In Siddha literature – <sup>5</sup>Gunapadam -Mooligai Vaguppu.

I have selected this drug because,

- The number of patients reporting Azhal keel vayu is increasing in the Govt. Siddha medical college hospital, Palayam kottai.
- The drug is easily available.

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<sup>4</sup> Davidson’s Principles And Practice Of Medicine, 16<sup>th</sup> Edition – Page No:798

<sup>5</sup> Gunapadam Mooligai Vaguppu.- vol.I : 4<sup>th</sup> Edition – Vaithiya Rathinam - Dr.Murugesu Muthaliar – Page No:334

- It can be easily identified
- It has no adverse effect when it is given in long term treatment
- No other person studied so far.

In this dissertation the analysis of Mutsangan ilai chooranam is done in following aspects,

- Botanical aspects
- Chemical aspects
- Gunapadam aspects
- Bio chemical aspects
- Pharmacological analysis
- Anti – microbial analysis
- Clinical assessment
- Bio statistical analysis.



## **REVIEW OF LITERATURE**

### **BOTANICAL ASPECT**

#### **SCIENTIFIC CLASSIFICATION**

Taxonomy position according to BENTHAM – HOOKER.

**BOTANICAL NAME:** *Azima tetracantha*, Lam.

|                       |   |  |
|-----------------------|---|--|
| <b>Kingdom</b>        | : | Plantae(Plants/piante)                           |
| <b>Subkingdom</b>     | : | Tracheobionta(Vascular plants/Piante Vascolari)  |
| <b>Supperdivision</b> | : | Spermatophyta(Seed plants/Piante con semi)       |
| <b>Division</b>       | : | Magnoliophyta(Flowering plants/Piante con fiori) |
| <b>Class</b>          | : | Magnoliopsida                                    |
| <b>Subclass</b>       | : | Rosidae  |
| <b>Order</b>          | : | Celastrales                                      |
| <b>Family</b>         | : | Salvadoraceae                                    |
| <b>Genus</b>          | : | <i>Azima</i> . Lam                               |
| <b>Species</b>        | : | <i>Tetracantha</i> . Lam                         |

#### **CHROMOSOME NUMBER**

$$2n=22$$

#### **ORIGIN AND GEOGRAPHIC DISTRIBUTION**

*Azima tetracantha* occurs naturally in Central, Eastern and Southern Africa as well as in the Indian Ocean Islands and extends through Arabia to tropical Asia.

முட்சங்கன்

AZIMA TETRACANTHA. Lam





## **DESCRIPTION**

Dioecious erect shrub upto 90cm tall with 2 spines 0.5cm – 5cm long in each leaf axil, sometimes scandent with stems upto 8 meter long.

Decussately opposite, simple and entire.

## **STIPULES**

Absent or rudimentary

## **PETIOLE**

Short,

Blade elliptical-oblong to ovate-oblong or orbicular, 1.5cm-5.5cm x 0.5-4.5cm base rounded or somewhat narrowed ,apex mucronate pinnate veined with one pair of lateral veins from near the base.

## **INFLORESCENCE**

An axillary, sometimes terminal spike or cyme upto 3cm long or flowers solitary.

## **BRACTS**

Ovate, often with long and spinous mucro.

## **FLOWERS**

Uni sexual, regular, 4 merous, usually sessile.

## **CALYX**

Campanulate 2- 4mm long, with triangular lobes.



## **PETALS**

Linear – oblong to oblong, greenish to yellowish, the upper part reflexed over the calyx 2-5mm long.

## **MALE FLOWERS**

Stamens inserted at the base of the rudimentary ovary, exerted.

## **FEMALE FLOWERS**

Staminods and superior ovary upto 4-5mm long with a broad sessile stigma.

## **FRUIT**

A globose berry, edible, 0.5cm-1cm in diameter, 1-2 seeded, green turning white with persistent stigma.

## **OTHER BOTANICAL INFORMATION**

Azima comprises about 4 species in mainland Africa, Madagascar and Asia and is characterized by long axillary spines. Over the range of its distribution *Azima tetracantha* varies considerably, yet it is an easily recognizable and distinct species. In Southern Africa the male plants lack spines or have poorly developed ones, while female specimens have long spines.

## **GROWTH AND DEVELOPMENT**

The scandent, straggling growth habit and its spines make *Azima tetracantha* a useful spine for hedges. The hedge tends to open up underneath but pruning will keep it in shape. It coppices readily and spreads through underground runner.

## **ECOLOGY**

*Azima tetracantha* is found in bush scrub and forest, along rivers and at the coast, up to 1100m altitude. In East Africa it is common along banks of seasonal rivers where the soil is saline, notably in the edges of mangrove. In South Africa, *Azima tetracantha* occurs on termitaria and at the coast.

## **PROPAGATION AND PLANTING**

A few specialist nurseries in the United States offer seeds of *Azima tetracantha* for sale for ornamental purposes. Multiplication through cutting is possible.

## **FLOWERING TIME**

September – March

## **ALTITUDE RANGE**

Up to 1200m

## **GENETIC RESOURCES**

*Azima tetracantha* is a common widespread pioneer and thus there is no immediate risk of over harvesting for human use.

## **PROSPECTS**

The use of *Azima tetracantha* appears to be limited and only occasional in Africa. As all part contain Glucosinolate.

## TRADITIONAL USES

- In Madagascar an infusion of the leaves is used to treat Venereal diseases.
- In India and Srilanka the root, root barks and leaves are added to food as a remedy for Rheumatism. The plant is considered diuretic and is also used to treat Dropsy, Dyspepsia, Chronic diarrhoea and as a Stimulant tonic.
- In Western India juice of the leaves is applied as ear drops against ear ache and crushed leaves are placed on Painful teeth.
- In East Africa the pounded roots of *Azima tetracantha* are applied directly to snake bites and an infusion is taken orally as a treatment for them, while in Zimbabwe a mixture of roots and leaves is used similarly.
- The Bajun people of the Kenyan coast use a root decoction to treat Stomach disorders.
- In the Cap province of South Africa the juice of the berries is applied directly into the ear to ear ache and the dried root is ground, put in cold water and given to cows to Facilitate Difficult Parturition.
- *Azima tetracantha* is browsed by Livestock. It is planted as live fence in Bangaluru (India).

## PHYTO CHEMICAL ASPECT

- **Whole plant parts contain**

Dimeric piperidine alkaloids

- <sup>7</sup>Azimine
- Azcarpine
- Carpaine

- **Leaves and Root contain**

- Terpenoids

- **Seeds contain**

- Glycosides
- Acyl-Glycosides
- Quercetin
- Isorhamnetin
- Rhamnetin
- Rhamnazin

- **All parts contain**

- Glucosinolates

They are hydrolyzed into Thiocyanates, Iso-thiocyanates.

- **Seeds and Roots contain**

- N-Methoxy-3-indolylmethly-Glucosinolate

- **Seed oil contain**

The Fatty acids are

- Myrisfic acid 0.2%
- Palmitic acid 5%
- Stearic acid 15%
- Arachidic acid 7%
- Behenic acid 2%
- Linoleic acid 18%
- Eicosenoic acid 21%

That the oil could be suitable as edible oil.

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<sup>7</sup> Maruthuva thavaravial –Dr.S.Somasundaram., M.Sc.,P.hD . – Page No:117



## GUNAPADAM ASPECT

### முட்சங்கன்

#### <sup>8</sup>VERNACULAR NAMES

|       |   |  |
|-------|---|--|
| Sans  | : | Kundali.                                 |
| Hindi | : | Kalangur-kamai.                          |
| Tel   | : | Tella- upi.                              |
| Tamil | : | Sangan, Narsangan, Sangan sedi.          |
| Mal   | : | Changan.                                 |
| Eng   | : | Bee sting bush, Fire thorn, Needle bush. |

#### GEOGRAPHIC DISTRIBUTION

Leaves ( இலை )

Root ( வேர் )

Root park ( வேர்ப்பட்டை )

Lactex ( பால் )

#### Organoleptic characters

|                               |                    |
|-------------------------------|--------------------|
| Taste ( சுவை )                | - Bitter (கைப்பு)  |
| Potence (சுன்மை)              | -Heat(வெப்பம்)     |
| Bio transmittation ( பிரிவு ) | -Pungent(கார்ப்பு) |

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8. குணபாடம் முதல் பாகம்(பொருட்பண்பு நூல்) வைத்திய இரத்தினம் க.ச.முருகேசமுதலியார். பக்க எண்:414

## Therapeutic actions (செய்கைகள்)

### Leaves:

|               |                       |
|---------------|-----------------------|
| Diuretic      | (சிறுநீர்ப் பெருக்கி) |
| Stimulant     | (வெப்பமுண்டாக்கி)     |
| Tonic         | (உரமாக்கி)            |
| Anti periodic | (முறை வெப்பகற்றி)     |
| Astringent    | (துவர்ப்பி)           |
| Expectorant   | (கோழையகற்றி)          |

### Therapeutic efficacy (குணம்)

இதன் இலைக்கும் வேருக்கும் சோபை,கரப்பான்,வெப்பம்,கழலை, குன்மம்,கீல்வாதம்,வாதகோபம்,பித்தநோய்,பலநஞ்சுக்கள்நீங்கும்.

கண் துலக்கமும் குருதி பெருக்கும் உண்டாகும்.

“வீக்கம் கரப்பான் விதாகம் கிரந்தி குன்மம்

ஊக்க மிகுஞ் சூலை வாய்வோடு பித்தத்-தாக்கு விடம்

வீருமோ கண் துலங்கும் வீசு பசி ரத்தமுண்டாம்

சூறு சங்கன் வேரிலை கட்டு.”

இதன் வேர்பட்டைக்கு,கோழை,இருமல்,ஐய சுரம்,கடுப்பு, ஐய

அதைப்பு,கிரந்தி,உட்சுரம்,வளிநோய்கள்,வயிற்றுப்புழுக்கள்,ஆகிய--

வை குணமாகும்.

இதன் வேர்பட்டை பாலுக்கு வீக்கம்,நீரேற்றம்,சுரவேகம் ஆகியவை நீங்கும்.

“சங்கன் பால் வீக்கமதைத்தான் போக்கும் நீர்வடிக்கும்

அங்குரசு வெப்பகற்றும் ஐயமிலை”

## வழக்கு முறை

### இலை

- இலையின் குடிநீரை வளிநோயினருக்கு வழங்கி வரலாம்.
- இலையை அரைத்து அம்மைப் புண்களுக்குப் பூசக் குணமாகும்.
- இலையை அரைத்துக் கரப்பானுக்கு பூசி வர குணமுண்டாகும்.
- இதன் இலையையும் வேப்பிலையையும் ஒர் அளவாக எடுத்து அரைத்து சிறு புன்னைக்காயளவு பிரசவமான நாள் முதல் ஏழு நாள் வரை தினமும் இருவேளை கொடுத்து பத்தியம் வைக்க,பிள்ளை பெற்றப்பின் தடைப் பட்ட அழுக்கு வெளிப்படும்.
- இதன் இலைச்சாறு கோழையை வெளிப்படுத்தும்.

### சங்கன் பட்டை

“சங்கதட் சூரணஞ் சாப்பிட வெருகடி  
யங்கவுள் ளிரணமு மரந்தையு மறுமே.”

- சங்கன் பட்டையை காய வைத்து பொடித்து முறைப்படி உட்கொண்டு வந்தால் உடலினுள் உண்டான புண்களும் ஏனைய நோய்களும் அகலும்.

### சங்கன் வேர்பட்டைப் பால்

- வேர்பட்டையை இடித்துப் பிழிந்தப் பாலை ஒன்று அல்லது ஒன்னறைப் பலமெடுத்து அதற்கு இருமடங்கு வெள்ளாட்டுப்பால் சேர்த்துக் கொடுத்துவர சிறுநீரைப்பெருக்கி வெளிப்படுத்தி,
- உடல் வீக்கம்,சுரவெப்ப மிவைகளைப் போக்கும்.

### சங்கன் வேர்பட்டை

- சங்கன் வேர்பட்டையை அரைத்துப் பூசிவர வீக்கம் கரையும்.
- இதை குடிநீரிட்டு கொடுத்துவர முறைசுரம்,கீல்வீக்கம்,கோழை, இருமல்,ஐயசுரம்,உட்சுரம் முதலிய நோய்கள் குணமாகும்.

## முட்சங்கன்இலைச் சேரும் வாதநோய்களுக்கான மருந்துகள், அளவு மற்றும் தீரும் நோய்கள்

<sup>9</sup>1.ஆதண்டைத் தைலம்  
அளவு, பிரயோகம்:

-4 நாளுக்கு ஒரு முறை தலை முழுகி வரவும்.

தீரும் நோய்கள் :

சிரசுசூலை,சூலைவாயு,வாதசூலை,  
திமிர்வாதம்,இரைப்பு,வயிற்றில்  
உள்ளவாயு,சிறுகடுப்பு,நேத்திரகுத்து,  
சொறி,சிறங்கு,ரணங்கள் தீரும்.

ஆதாரம்:

- ஆத்துமரட்சாமிர்தமென்னும் வைத்திய  
சாரசங்கிரகம்

<sup>10</sup>2.கை கால் முடக்குக்கான சூலை18 க்கும் நிவர்த்தி  
அளவு:

வேளை ஒன்றிற்கு சூரணம் திரிகடி  
பிறமாணம் முறையில் கூறிய  
சேராங்கொட்டை தைலத்துடன்  
சாப்பிடவும்.

தீரும் நோய்கள்:

கரப்பான் பொருட்கள் நீங்கி  
மண்டலம் சாப்பிட கைகால்  
முடக்குக் கானசூலை18ம் நிவர்த்தியாகும்.

ஆதாரம்:

- ஆத்துமரட்சாமிர்தமென்னும் வைத்திய  
சாரசங்கிரகம்

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9.ஆத்துமரட்சாமிர்தமென்னும் வைத்திய சாரசங்கிரகம் - கந்தசாமி முதலியார் பக்.எண்:138

10.ஆத்துமரட்சாமிர்தமென்னும் வைத்திய சாரசங்கிரகம் - கந்தசாமி முதலியார் பக்.எண்:394

### 3. <sup>11</sup>சர்வாங்க வாதசூரணம்

அளவு - திரி கடிப்பிரமாணம்

அனுபானம்- காந்தாரிய நீர்

தீரும் நோய்கள்: சூயை, கெர்ப்பச் சூலை, குடல் வாதம், வாத சூலை, ரத்தபித்த சூலை, சர்வாங்க வாதம்

### 4. காலருத்திராங்க எண்ணெய்

<sup>12</sup>அளவு: வேளைக்கு 1/4- 1/2 பலம் வீதம் தேக திடத்திற்கு ஏற்றவாறு தினாம் ஒரு வேளை கொடித்து வர நாலைந்து முறை பேதியாகும். இப்படி 3 அல்லது நாட்கள் கொடுக்கவும்.

தீரும் நோய்கள்: மண்டை வலி, குத்தல், சுழல் வாதம், இசிவு வாதம், அண்ட வாதம், நடுக்கவ் வாதம், இடுப்பு இசிப்பு வாதம், திமிர் வாதம், முடக்கு வாதம்.

### 5. <sup>13</sup>கன மண்டுர செந்தூரம்

அளவு: அரிசி எடை

அனுபானம்: தேனில்

தீரும் நோய்கள்: சுவாச காசம், உப்புசம், சயம், திராணி, அதிசாரம், உட்காய்ச்சல், சோகை, வீக்கம், எட்டு வித பாண்டு இவைகள் தீரும்.

### 6. சிவனார் வேம்பு சூரணம்:

அளவு: வெகு கடியளவு

அனுபானம்: சிவனார் வேம்பு தைலம் காசெடை

தீரும் நோய்கள்: சூலை, 18 வகை குட்டம், குறை நோய்

### 7. <sup>14</sup>வளி வெப்புக் குடி நீர்

அளவு: - 1/4 சேர்

அனுபானம்: - வாதராட்சத் குளிகை பணவெடை தேன் சேர்த்து இழைத்து மேற்படி கியாழத்துடன் இருவேளை. தீரு <sup>13</sup>ம் நோய்கள்: வாதசூரம், நடுக்கு வாதம்

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<sup>11, 12</sup> சிரிச்சாரந்ததீபம் 2ம் பாகம், சி.கண்ணுச்சாமிபிள்ளை பக்.எண்: 189

<sup>13</sup> அனுபோக வைத்திய பிரம்ம ரகசியம் பாகம் 1 திரு. கோஷாயி சுவாமிகள் பக்.எண்: 147

<sup>14</sup> சித்த வைத்தியத் திரட்டு டாக்டர். க.நா. குப்பு சாமி முதலியார் HPIM டாக்டர்.க.சு. உத்தமராயன் HPIM

**8. <sup>15</sup>மண்டுராதி அடைக்குடி நீர்:**

அளவு: - 1/4 ஆழாக்கு - இரண்டு அல்லது மூன்று வேளை

தீரும் நோய்கள் - பாண்டு, சோகை, காமாலை, பல வகைப்பட்ட மகோதரங்கள்

ஆதாரம்:

**9. <sup>16</sup>இரச கந்தி மெழுகு:**

அளவு: தேற்றாங்கொட்டை பிரமாணம் தினம் இருவேளை நாட்கள்

தீரும் நோய்கள்: குஷ்டம், திமிர், கண்டமாலை, மேகசூலை, கிரந்தி, அரையாப்பு, புற்று, கரும்புள்ளி, மேக ஊறல், படர் தாமரை, பவுத்திரம், குழிவிரணம், தொடை வாழை தீரும்.

**10. கதலி கந்த ரசாயணம்:**

அளவு: கொட்டைப்பாக்களவு

தீரும் நோய்கள்:

பெரும் பாடு, எலும்புருக்கி, பிரமேகங்கள், மேகவகை, 18 வகை சூலை, கிரந்தி, குட்டம், சொறி, கரப்பன், ஊறல், கிராணி வகை, மூலச்சூடு, இளைப்பிருமல், காசம், நீரிழிவு, கிரிச்சரங்கள், ஆசிகா கெர்ப்பம் - 7 வகை ரோகங்கள்

**11. <sup>17</sup>சர்வாங்க வாதசூரணம்:**

அளவு - திரி கடிப்பிரமாணம்

அனுபானம்- காந்தாரிய நீர்

தீரும் நோய்கள்: சூயை, கெர்ப்பச் சூலை, குடல் வாதம், வாத சூலை, ரத்தபித்த சூலை, சர்வாங்க வாதம்

ஆதாரம்:

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<sup>15</sup> சித்தவைத்தியத் திரட்டு டாக்டர். க.நா. குப்பு சாமி முதலியார் HPIM டாக்டர்.க.சு. உத்தமராயன் HPIM

<sup>16</sup> சிகிச்சாரந்த தீபம் 2ம் பாகம்சி.கண்ணுச் சாமிப்பிள்ளை பக்.எண் 255

<sup>17</sup> ஆத்மரட்சாமிர்த மென்னும் வைத்திய சார சங்கிரகம் -கந்தசாமி முதலியார், பக். எண் 138

## முட்சங்கனிலைச் சேரும் பிற நோய்க்கான மருந்துகள்:

### 1. நொச்சித்தைலம்

அளவு: காசளவு உள்ளுக்கு

தீரும் நோய்கள்: 5 வகை காச நோய்கள், கபமும் தீரும்.

ஆதாரம்: சித்தவைத்திய திரட்டு

### 2. யாழ்பாணத்தெண்ணெய்

அளவு: ஒரு கரண்டி - காலை மட்டும்

தீரும் நோய்கள்: சகல கரப்பான், ரணம், சொறி, சிரங்கு முதலானதும் நீங்கி விடும்.

### 3. <sup>17</sup>மான் கொம்பு பற்பம்

அளவு: பணவெடை

அனுபானம்: நெய், வெண்ணெய்

தீரும் நோய்கள்: நீரடைப்பு, நீர் எரிச்சல, கயம், ஈளை, மேகக்காங்கை, மார்பு நோய் ,  
இவைகளைக் குணப்படுத்தும்

### 4. <sup>18</sup>மதன காமேசுர லேகியம்

அளவு: கொட்டை பாக்களவு

தீரும் நோய்கள்: சகல வியாதியும் தீரும், தாது புஷ்டி உண்டாகும்

ஆதாரம்: கல்லடைப்புக்கு

சங்கிலை

ஈருள்ளி

பச்சை நெல்லுமி

இவைகளை ஓர் நிறையாய் இடித்து சாறு பிழிந்து, கொள்ளவும்.

அளவு - 1/4 படி

தீரும் நோய்: கல் தெறித்து நீர் இறங்கும்

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<sup>17</sup> சிகிச்சாரந் தீபம் சி. கண்ணுசாமி பிள்ளை பக்.எண் 209

<sup>18</sup> ஆத்மரட்சாமிர்தமென்னும் வைத்திய சார சங்கிரகம் -கந்தசாமி முதலியார், பக். எண் 453

## 5. <sup>19</sup>இளைப்பு இருமலுக்கு

முட்சங்கன்

தூதுவளை

கண்டங்கத்திரி

செம்முள்ளி

ஆடாதோடை

இவைகளின் இலைகள் வகைக்கு 1 பிடி வீசிதம் இடித்து பிட்டவித்துக் சாறு பிழிந்ததிற்

சுக்கு

மிளகு

நீந்துப்பு

சிறுதிப்பிலி

வகைக்கு 1/4 பலம் வெதுப்பிப் பொடித்துத் தூவி கொள்ளவும்.

அளவு: சங்களவு

அனுபானம்: தேன்

தீரும் நோய்கள்: இளைப்பு இருமல்

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<sup>19</sup> ஆத்மரட்சாமிர்த மென்னும் வைத்திய சார சங்கிரகம் -கந்தசாமி முதலியார், பக். எண் 138



## அனுபானம்-காய்ந்தாரிய நீர்

<sup>11</sup>காய்ந்தாரிய நீரின் குணம்:

“காய்ந்தாற வைத்த நீர் கட்டுழலை விக்கலொடு  
வாய்ந்த வதிசார பித்த மாற்றுங்காண்-சேர்ந்துவரு

வாதத்தின் கோபமிவை மாறு மென் லாதியருள்  
வேதத்தின் வாக்கியமாம்

காய்ந்தாரிய நீரின் குணம்-பொருள்:

- |                               |              |
|-------------------------------|--------------|
| • உழலை நோய்                   | திரிதோடம்    |
| • கண்ணோய்                     | செவி குத்தல் |
| • சூலை                        | விக்கல்      |
| • பேதியாற்கிளைத்த பித்த கோபம் |              |
| • மூர்ச்சை                    | சில்விஷம்    |
| • வாந்தி                      | கோழை         |
| • குன்மம்                     | மயக்கம்      |
| இவைகளைத் தீர்க்கும்           |              |

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<sup>11</sup> Siddha Maruthuvanga Surukkam - Dr.K.S.Uththamarayan .HPIM – Page No:381

## SIDDHA ASPECTS

### கீல் வாயு

வேறு பெயர்கள்:

சந்து வலி, மூட்டுவலி, மேகசூலை, முடக்கு வாயு, ஆமவாதம்.

இயல்:

இதும் கீல்களில் வளிக்குற்றம் கூடி நோயை உண்டாக்குவதால் கீல் வாயு எனவும் மூட்டுகளில் நோயை உண்டாக்குவதால் மூட்டுவலி எனவும்

இந் நோய் பெரும்பான்மையும் மேகத்தின் தொடர்பு நோயாக வருவதால் மேகசூலை என்றும், மூட்டுகளை முடக்கி வைப்பதால் முடக்கு வாயு என்றும்

வயிற்றில் மந்தம் உண்டாக்கி ஐயத்தைப் பெருக்கி இந் நோய் வருவதால் ஆம வாதம் எனவும் பெயர் பெற்றது.

கீல்களில் வீங்குவது, குத்துவது, நோவது முதலியவற்றை உண்டாக்கி மடக்கவும், நீட்டவும், அசைக்கவும் முடியாமல் செய்து படுக்கையில் இருத்தி , ஐயமும் கூட்டி சுர முதலிய துணை நோய்களையும் உண்டாக்கும் இயல்புடையது.

<sup>-1</sup>"வளிமையுந் தன்னிலை கெட்டு

வலியுடன் வீக்கச் சுரமும் காய்ந்து

மூட்டுக டோறும் முடுக்கியே நொந்து

மூட்டுக டன்னின் நீரும் சுரந்து

தாங்கொணா வலியுடன் நொந்திடு மம்மே"

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<sup>-1</sup> சபாபதி கையேடு - சித்த மருத்துவம் (பொது) - பக்கம் :624

### நோய் எண்: பத்து

- வளிக்கீல் வாயு
- அழல் கீல் வாயு
- ஐயக்கீல்வாயு
- வளி அழல் கீல் வாயு
- வளி ஐயக்கீல் வாயு
- அழல் வளிக்கீல் வாயு
- அழல் ஐய கீல் வாயு
- ஐய அழல் கீல் வாயு
- ஐய வளி கீல் வாயு
- முக்குற்றக் கீல்வாயு

### நோய் வரும் வழி:

வளிக் குற்றத்தைத் தூண்டும் உணவுகளாகிய வாழைக்காய், உருளாய்க்கிழங்கு, கொத்தவரங்காய் போன்ற பொருட்களையும், குளிர்ச்சி தரும் பொருட்களையும் உண்பதாலும் குளிர் காற்றில் ஈடுபடுதல், மழையில், நனைதல், பனிவாடையில் படித்தல், உயர்ந்த மலையில் தங்குதல் ஆகிய ஐயக்குற்றத்தை தூண்டச் செய்யும் வகைகளாலும் இந்நோய் பிறக்கும். அன்றியும் பெண் கூட்டால் பிறந்த மேக நோய்க்குத் துணையாயும், தாய் தந்தையரின் வழியாகவும் வருவதுமுண்டு.

### அழல் கீல் வாயு

"பித்த கீல் வாயு தன்னாற் பிறங்குகீன் மூட்டு வீங்கிச்

சித்தர் செய் மருந்து வந்துஞ் சீர்படாத் தன்மைத் தாகித்

தத்தறு காய்ச்சல் கண்டு சாலவே தனைத்தான் தந்தே  
மெத்தறு சிகிச்சை தன்னால் மென்மெல நீங்குமப்பா"

-2

வளிக்குற்றம் தன்னிலையில் மிகுந்துள்ள போது, அழல் குற்றத்தைத் தூண்டக்கூடிய உணவு, செய்கை முதலியவற்றால் பிறக்கும், நோயாகும்.

இந் நோயில் மூட்டுகளில் உண்டான வீக்கம் நாளுக்கு நாள் பெருத்துக் கொண்டே வந்து, மிகுந்த தீக் குற்றத்தால் கீல்களிடையேயுள்ள பசை வறண்டு பசையற்றும் கீல் அசையும் போதெல்லாம் நெட்டையுடைதலும் "கலுக்" "கலுக்" என்ற ஓர் ஒளி உண்டாவதுமாய் இருக்கும்..

<sup>-2</sup> சபாபதி கையேடு - சித்த மருத்துவம் (பொது) - பக்கம் :624

சில வேளைகளில் கீலுக்கு கீல் கூடி ஒட்டிக் கொண்டு. ஒரு கழி போல் மடக்க முடியாமலே நின்று விடுவதும் உண்டு. இந் நோயில் சிறு சுரமும் வரும்.

"வளிதரு காய் கிழங்கு வரை விலா தயிலல் கோழை

முளிதயிர் போன் மிகுக்கு முறையிலா வுண்டி கோடல் "

### முற்குறிகள்:

இந் நோய் பிறக்குமுன்னர்,

- மூக்கடைப்பு
- மூக்கில் நீர் பாய்தல்
- தொண்டை கட்டல்
- சிறு சுரம்
- கை, கல் நோதல், குத்தல், என்னும்

முற்குறிகளை காட்டிப் பின் நோய் தொடங்கும். தீக்குற்றம் தன்னளவில் மிகுதியடைங்கதமையால் இயற்கையாய்க் கீல்களின் இடையிலுள்ள நீர் பசை குறைந்து உலர்ந்து கீழும், மேலுமாயுள்ள கீல்கள் ஒன்றோடொன்று அசையும் பொழுது தேய்ந்து புண்பட்டு அப்புண் உலர உலர ஒன்றோடொன்று இணைத்து ஒட்டிக்கொள்ளும்.

அக்கீலை நீட்டவும் மடக்கவும் முடியாது. நாட்செல்ல நாட்செல்ல கீலும், கீலுக்கு மேலுள்ள பாகமும் இணித்து சூம்பிப் போகும். அதனால் தொழில் அற்றுப் போகும்.

## **Disorders of the Musculo skeletal System**

<sup>12</sup>Disorders of the Musculo skeletal System are prevalent throughout the world affecting all age and ethnic groups most musculo skeletal conditions predominate in woman and show a strong association with age.

There are two conditions regarding

1. Non-inflammatory conditions
2. Inflammatory conditions

Non-inflammatory conditions are most prevalent than inflammatory disorders. Osteo arthritis is one of the non-inflammatory conditions

### **OSTEOARTHRITIS**

It is most common joint disorders with knee involvement a major cause of disability.

The two most fundamental features osteoarthritis are,

1. Joint space narrowing
2. Osteophytes

Pathologically it may be defined as a condition of synovial joints characterized by

- Focal loss of Hyaline Cartilage with proliferation of new bone and
- Remodeling of joint
- OA preferably targets certain small & large joints
- It is not a disease (or) a single condition
- It is best viewed as the dynamic repair process of synovial joints triggered by variety of insults.
- It is a degenerative joint disease.

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<sup>12</sup> Davidson's Principles And Practice Of Medicine, 16<sup>th</sup> Edition – Page No:798

## **Epidemiology:**

80% of 6 years old people have

- Radiographic evidence

20% have symptomatic evidence

10% to 20% of old people are affected by KNEE and HIP That are large joints involved.

## **Aetiology and Pathogenesis**

Synovial joints are damaged by a variety of

- Mechanical
- Metabolic
- Genetic
- Constitutional insults

Type:

- Primary OSTEOARTHRITIS  
There is no clear cause
- Secondary OSTEOARTHRITIS  
There is a clear cause like Trauma
- An insult in one joint will impact on the other joints
- OA Process involves production of new tissue and Remodelling of joint space
- Compensated OA:  
Production of new tissue, remodeling of joint space compensates are an automatically altered and pain free functioning of joint.

- Cartilage changes:
  - There is an Enzymatic Degeneration of aggrecan and collagen.
  - Cartilage cells (chondrocytes) increase production of matrix components.
    - (aggrecan and collagen)
  - Divide to produce nests of metabolically active cartilage cells.
  - The decrease in size of hydrophilic aggrecan molecules
  - Increase the water concentration and swelling pressure in cartilage.
  - Fissuring of the cartilage surface
  - Leading to the development of deep vertical clefts
  - Localized chondrocyte death and decreased cartilage thickness
  - Changes in OA cartilage encourage deposition of
    - calcium
    - Pyrophosphate
    - Basic calcium –
    - - Phosphate crystals
- Bone changes
  - The sub chondral bone shows
    - Osteolysis
    - Osteoclerosis

## **Other changes**

The synovium undergoes variable degrees of hyperplasia. Abnormal increase in the number of normal cells in normal arrangement an organ/tissue increases its value.

## **Clinical Features:**

The main presenting symptoms are pain & functional restrictions.

Typical OA-Pain has the characteristics listed below.

1. Age > 45 years
2. Onset insidious over months & years
3. Variable/ Intermittent over time.
4. Mainly related to movement/weight bearing – relieved by rest
5. Only brief morning stiffness / gelling after rest.
6. Usually only one / few joints painful.

## **Signs:**

1. Restricted movement due to capsular thickening
2. Bony swelling around joint margins.
3. Deformity usually with stability.
4. Joint – line (or) Periarticular tenderness
5. Muscle weakness, wasting
6. Mild synovitis, effusion -> increased warmth

OA is prevalent and commonly asymptomatic in middle aged and older people.



## **KNEE OA**

This OA targets the

- Patello – Femoral
- Medial Tibio – Femoral

Compartments of the knee joint are,

- It may occur as a part of nodal generalized OA
- Women are affected by knee OA
- It is bilateral & symmetrical
- Rising from chair
- Getting in (or) out of a car.
- Bending to put on shoes & socks are different in knee OA

Local examination findings include:

1. A joint asymmetric gait – less time weight bearing on the painful side.
2. Bony swelling around the joint lines

### **Investigations:**

- A plain X-Ray shows one or more of the typical features of OA.
- Standing(stressed) OA radiographs are required to assess Tibio-Femoral Cartilage loss
- A flexed skyline view is required for assessing Patello – Femoral – narrowing
- X-Rays may show typical features of Dysplasia (or) avascular necrosis widening of joint – spaces in acromegaly, multiple cysts (the presence of  $Ca^{++}$  salts(calcium pyrophosphate) in the cartilaginous structures of one or more joints)
- Chondro calcinosis in haemochromatosis

## **Lateral Aspect of Anti asthmatic effect for Azima tetracantha**

To evaluate the effect of methanolic extract of Azima tetracantha.Lam(meat) for the management of asthma.In the present study,meat at dose of 200mg and 400mg/kg ip.was evaluated for management of asthma using Histamine induced bronchospasm in guinea pig.

## AZIMA TETRACANTHA .Lam



## **MATERIALS AND METHODS**

### **Drug Selection**

In this dissertation, leaves of “**Mutsangan**” (*Azima tetracantha* Lam.) are taken as a single drug. The reference is found in “11 the literature of <sup>13</sup>**Gunapadam Mooliagai Vaguppu.**”

### **Collection of the test drug**

Leaves of **Mutsangan** were collected from river bank of Saaminaththam near Thirutchuzhi, Viruthunagar district.

### **Preparation of the test drug**

After collection it was cleaned thoroughly and dried completely under the sunshade for 2 weeks, so as to ensure of it is free from moisture. Powder the purified Mutsangan leaves and filter it with clean white cloth (Vasthirakayam). Then collect the powder and keep it in an air tight container.

### **Purification of the test drug**

A clay pot is taken and is filled with equal parts of milk and water, a white cotton cloth is tied tight around the mouth of the pot.

The prepared chooranam is placed over the cloth and then is covered with another clay pot. It is kept on the fire until the milk level decreases.

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<sup>13</sup> Gunapadam Mooligai Vaguppu.- vol.I : 4<sup>th</sup> Edition –Dr.Murugesha Muthaliar – Page No:334

The chooranam was taken out and it is dried in sunlight heat. Then the chooranam was stored in a clean dry air tight container, since the life time of chooranam is only three months it should be used within that period .

### **Route of Administration**

Oral route

### **Therapeutic dose**

1 gm with luke' warm water twice a day before taking food.

**CERTIFICATE OF ANALYSIS**

Name of the Product: 095Mutsangan ilai Chooranam      Report No : CAR/DTL/CUR061  
 Date of Sampling : 09.10.12      Report Date: 18.12.12  
 Manufacturer : Dr.G.Kanmani, G.S.M.C, Palayamkottai

**PHYSICO-CHEMICAL STANDARDISATION**

| S.No | TESTS                      | AS PER ANALYSIS             |
|------|----------------------------|-----------------------------|
| 1.   | Description                | Light green coloured Powder |
| 2.   | pH(1% w/v solution)        | 5.97                        |
| 3.   | Bulk density               | 0.33gm/ml                   |
| 4.   | Tap density                | 0.54gm/ml                   |
| 5.   | Loss on Drying at 105°C    | 5.61%                       |
| 6.   | Total Ash                  | 17.72%                      |
| 7.   | Acid Insoluble Ash         | 0.22%                       |
| 8.   | Water Soluble Extractive   | 31.98%                      |
| 9.   | Alcohol Soluble Extractive | 22.07%                      |

**SIEVE ANALYSIS**

| S.No | Sieve No (μ)  | % of particles retained |
|------|---------------|-------------------------|
| 1.   | 600           | 8.52                    |
| 2.   | 300           | 7.6                     |
| 3.   | 150           | 45.82                   |
| 4.   | 75            | 32.2                    |
| 5.   | Final Product | 5.8                     |

  
**ANALYST**

  
**LAB IN-CHARGE**

  
**ASSOCIATE DEAN & CO-ORDINATOR**

## **BIO–CHEMICAL ANALYSIS OF MUTSANGAN ILAI CHOORANAM.**

### **Preparation of the Extract:**

5gms of the drug was weighed accurately and placed in a 250ml clean beaker. Then 50ml of distilled water is added and dissolved well. Then it is boiled well for about 10 minutes. It is cooled and filtered in a 100ml volumetric flask and then it is made up to 100ml with distilled water. This fluid is taken for analysis.

**TABLE:1 STDUY OF BIO–CHEMICAL Qualitative Analysis:**

| <b>Sl.No.</b> | <b>Experiment</b>   | <b>Observation</b>               | <b>Inference</b>                          |
|---------------|---|----------------------------------|---|
| 1             | <b>TEST FOR CALCIUM:</b><br>2ml of the above prepared extract is taken in a clean test tube. To this add 2ml of 4% Ammonium oxalate solution. | A white precipitate is formed    | Indicates the <b>presence of Calcium</b>  |
| 2             | <b>TEST FOR SULPHATE:</b><br>2ml of the extract is added to 5% Barium chloride solution.  | A white precipitate is formed    | Indicates the <b>presence of Sulphate</b> |
| 3             | <b>TEST FOR CHLORIDE:</b><br>The extract is treated with silver nitrate solution.   | A white precipitate is formed    | Indicates the <b>presence of Chloride</b> |
| 4             | <b>TEST FOR CARBONATE:</b><br>The substance is treated with concentrated HCL.   | No brisk effervescence is formed | Absence of Carbonate                      |

|     |  |                                     |   |
|-----|--|-------------------------------------|---|
| 5   | <b>TEST FOR STARCH:</b><br>The extract is added with weak iodine solution.   | Blue colour is formed               | Indicates the <b>presence of Starch</b>               |
| 6   | <b>TEST FOR FERRIC IRON:</b><br>The extract is acidified with Glacial acetic acid and potassium ferro cyanide.           | No blue colour is formed            | Absence of Ferric iron.                               |
| 7   | <b>TEST FOR FERROUS IRON:</b><br>The extract is treated with concentrated nitric acid and ammonium thiocyanate solution. | Blood red colour is formed          | <b>Indicates the presence of Ferrous iron</b>         |
| 8   | <b>TEST FOR PHOSPHATE:</b><br>The extract is treated with Ammonium molybdate and concentrated nitric acid.               | No yellow precipitate is formed     | Absence of Phosphate                                  |
| 9   | <b>TEST FOR ALBUMIN:</b><br>The extract is treated with Esbach's reagent.  | No yellow precipitate is formed     | Absence of Albumin.                                   |
| 10. | <b>TEST FOR TANNIC ACID:</b><br>The extract is treated with ferric choloride.  | No blue black precipitate is formed | Absence of Tannic acid                                |
| 11  | <b>TEST FOR UNSATURATION:</b><br>Potassium permanganate solution is added to the extract.                                | It gets decolourised                | <b>Indicates the presence of Unsaturated compound</b> |



|    |  |                                |  |
|----|--|--------------------------------|--|
| 12 | <b>TEST FOR THE REDUCING SUGAR:</b><br>5ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 mts and added 8-10 drops of the extract and again boil it for 2 mts. | No colour change occurs        | Absence of Reducing sugar                    |
| 13 | <b>TEST FOR AMINO ACIDS:</b><br>One or two drops of the extract is placed on a filter paper and dried it well. After drying, 1% Ninhydrin is sprayed over the same and dried well.                   | Violet colour is formed        | <b>Indicates the presence of Amino acid.</b> |
| 14 | <b>TEST FOR ZINC:</b><br>The extract is treated with potassium Ferrocyanide.   | No white precipitate is formed | Absence of zinc                              |

## INFERENCE

The given sample of “**MUTSANGAN ILAI CHOORANAM**” indicates the presence of **Calcium, Sulphate, Chloride, Starch, Ferrous Iron, Unsaturated Compounds and Amino Acid.**

## PHARMACOLOGICAL STUDIES

### ANALGESIC STUDY OF

## **“MUTSANGAN ILAI CHOORANAM”**

### **ON ALBINO RATS BY TAIL –FLICK METHOD**

#### **Aim:**

To study the analgesic effect of “**Mutsangan ilai chooranam**” on albino rats by Tail – flick method.

#### **Materials and Methods:**

##### **Preparation of the test drug:**

1 gm of **Mutsangan ilai chooranam** was suspended in 10 ml of distilled water using as suspending agent. This 1ml contains 100mg of the test drug (**Mutsangan ilai chooranam**).

##### **Instrument:**

Hot water bath maintained at  $55^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$  was used as the source of stimulus.

##### **Procedure:**

Healthy albino rats weighing 100-200gms of both sexes were selected. The tail of each rat was dipped in the hot water bath and time taken for the rat to remove the tail from the water bath was noted. The rats that take more than 5 seconds to remove the tail are excluded from the equipment. Then the rats were divided into 3 equal groups, each group having 2 rats.

The first group was given the solvent used to suspend the drug and kept as untreated control. The second group was given the standard drug and kept as

treated control .The third group was given the test drug 100 mg /100 gm, ½ hr and 1 hr after drug administration the rats are again tested by dipping the tail in the hot water bath . The time taken for the rat to remove the tail was noted as done initially.

The result of control group, standard group and drug treated group were tabulated and compared.

**TABLE:2 STDUY OF ANALGESIC EFFECT OF USING THE DRUG OF MUTSANGAN ILAI CHOORANAM**

| No | Name of Drugs / Groups                    | Dose / 100 gram body weight | Initial Reading | After Drug Administration |               | Mean Difference |
|----|---|-----------------------------|-----------------|---------------------------|---------------|-----------------|
|    |   |                             |                 | 1/2 hr. Average           | 1 hr. Average |                 |
| 1. | Control                                   | 2ml                         | 2.0secs         | 2.0secs                   | 2.0 secs      | 2.0 secs        |
| 2. | Standard Paracetamol                      | 20mg                        | 2.5secs         | 4.5secs                   | 6.5secs       | 6.5 secs        |
| 3. | Test Drug <b>Mutsangan ilai chooranam</b> | 100mg                       | 2.5 secs        | 4.5 secs                  | 6.0secs       | 6.0 secs        |

## **INFERENCE**

The test drug “**MUTSANGAN ILAI CHOORANAM**” has got **GOOD ANALGESIC ACTIVITY.**

## **ANTI – INFLAMMATORY STUDY OF “MUTSANGAN ILAI CHOORANAM”**

## **ACUTE ANTI – INFLAMMATORY STUDIES –CARRAGEENIN INDUCED HINDPAW EDEMA METHOD**

### **Method:**

Carrageenin induced Hind paw edema method in Albino rats.

### **Aim:**

To evaluate the acute anti – inflammatory effect of “**Mutsangan ilai chooranam**” by carrageenin induced oedema method in albino rats.

### **Drug preparation:**

1 gm of **Mutsangan ilai chooranam** was suspended in 10ml of distilled water using as suspending agent. This 2ml contains 200mg of the test drug.

### **Procedure:**

After the measurement of hindpaw of all the rats they were divided into three groups each containing two rats.

First group was kept in control by giving distilled water of 2ml/100mg of body weight. The second group was given ibuprofen 20mg/100gm body weight and kept as standard. Third group was given test drug **Mutsangan ilai chooranam** 100mg / 100gm body weight.

The drugs were administered orally, one hour after drug administration; 0.1ml 1% (W/V) of carrageenin suspension in water was injected in the plantar surface of hind paw of rats.

All the animals were given carrageenin injection subcutaneously. Three hour after carrageenin injection, the hind-paw volume was measured for the differences in the initial and final hind paw volume , the degree of the inflammation was calculated by taking the volume in the untreated control group as 100%.

The percentage of inflammation of the other group was calculated from the degree of anti inflammatory effect of the treated and the test groups were calculated.

## **Results:**

The details of the experiment results are shown in the table.

**TABLE:3 STUDY OF ACUTE ANTI - INFLAMMATORY BY HINDPAW EDEMA METHOD USING PLETHYSMOGRAPH USING THE DRUG OF MUTSANGAN ILAI CHOORANAM**

| Group    | Drug                                    | Dose/100gm<br>Of body<br>weight | Initial<br>Reading<br>Average | Final<br>Reading<br>Average | Mean<br>Difference | Percentage<br>inflammation | Percentage<br>Inhibition |
|----------|---|---------------------------------|-------------------------------|-----------------------------|--------------------|----------------------------|--------------------------|
| Control  | Water                                   | 2ml                             | 0.55                          | 1.4                         | 0.85               | 100                        | -                        |
| Standard | Ibuprofen                               | 20mg                            | 0.55                          | 0.75                        | 0.20               | 23.5                       | 76.5                     |
| Testdrug | <b>Mutsangan<br/>ilai<br/>chooranam</b> | 100mg                           | 0.7                           | 1.0                         | 0.3                | 35.2                       | 64.8                     |

**Inference:**

Thus “**MUTSANGAN ILAI CHOORANAM**” has **Significant** **acute**  
**anti inflammatory effect.**

## **ANTI – MICROBIAL ACTIVITY BY KIRBY BAUER METHOD**

### **Aim:**

To determine the Antimicrobial activity of “**Mutsangan ilai chooranam.**”

### **Components of Muller Hintan Agar Medium**

|                    |   |               |
|--------------------|---|---------------|
| Beef Extract       | : | 300 gms /lit  |
| Agar               | : | 17 gms /lit   |
| Starch             | : | 1.5 gms / lit |
| Casein Hydroxylate | : | 17.5 gms/lit  |
| Distilled water    | : | 1000 ml.      |
| PH                 | : | 7.6.          |

### **Procedure:**

The method of antimicrobial activity study is UPS Diffusion Method. Antibiotic discs are prepared with known concentration of antibiotic and are placed on agar plates that have been inoculated with the known pathogenic Micro organism. The antibiotic diffuses through the agar producing an antibiotic concentration gradient. Antimicrobial susceptibility is proportional to the diameter of the inhibitory zone around the disc. If the Micro organism grows upto the edge of the disc, it is resistant to the antimicrobial agent. The recommended medium in this method is Muller Hinton Agar, its PH should be between 7.2 – 7.6 and should be poured to uniform thickness of 4mm in the petri plate (25ml)

### Methodology:

Muller Hinton Agar plates are prepared and Pseudomonas, Staphylococcus, Klebsiella, Streptococcus, proteus are inoculated separately.

The prepared discs of **Mutsangan ilai chooranam** are placed over the incubated plate using sterile forceps and incubated for 24 hours at 37°celcius.

The plates after 24hours incubation are observed for the zone of inhibition.

### Result:

**TABLE :4 STUDY OF ANTI – MICROBIAL ACTIVITY USING THE DRUG OF MUTSANGAN ILAI CHOORANAM**

| S.No | Test Drug                       | Organisms (Culture)      | Susceptibility | Standard drug Zone size (mm) | Test drug Zone size (mm) |
|------|---------------------------------|--------------------------|----------------|------------------------------|--------------------------|
| 1.   | <b>Mutsangan ilai chooranam</b> | Ecoli                    | moderate       | 13                           | 23                       |
| 2.   |                                 | Klebsiella               | Sensitive      | 24                           | 25                       |
| 3.   |                                 | Staphylococcus aureus    | Sensitive      | 20                           | 22                       |
| 4.   |                                 | Streptococcus pneumoniae | Moderate       | 15                           | 20                       |
| 5.   |                                 | Pseudomonas aeruginosa   | Resistant      | -                            | -                        |
| 6.   |                                 | Proteus                  | Resistant      | -                            | -                        |

### Report:

The test drug **Mutsangan ilai chooranam** was sensitive for Klebsiella, Staphylococcus aureus, Moderate for Ecoli, Streptococcus pneumoniae, Resistant for Pseudomonas aeruginosa, Proteus.



## **ACUTE TOXICITY STUDY FOR MUSANGANILAI CHOORANAM**

### **Animals used for the study:**

Wister albino rats breed in the animal house attached to the Post Graduate Pharmacology Department Govt. Siddha Medical College, Palayamkottai were used.

### **Sex:**

Animals of both sex were used.

### **Weight:**

Animals weighing 100-120gms were selected.

### **Food and water:**

The animals were maintained with standard laboratory pellet food and water ad-Libitum.

### **Preparation of Animals:**

The animals were randomly selected and were marked with picric acid on for and kept in their cages for five days prior to dosing, to allow acclimatization to the laboratory conditions.

### **Separation of Animals in Groups:**

10 rats were divided into 5 groups each consisting of 2 rats, 1<sup>st</sup> group is kept as control group by giving water alone.

### **Dose Levels:**

The following dose levels were arbitrarily fixed by persuming range of least toxic to high toxic doses.

- |          |   |                                |
|----------|---|--------------------------------|
| I Group  | - | 100mg/kg body weight of animal |
| II Group | - | 200mg/kg                       |

|           |   |            |
|-----------|---|------------|
| III Group | - | 400mg/kg   |
| IV Group  | - | 800mg/kg   |
| V Group   | - | 1600 mg/kg |

### **Route of Administration:**

The drug was administered orally.

### **Test Dose Preparation:**

The Preparation was done in such a way 1ml of the suspension contained 100mg of test drug and administered as given above in each group the drug was administered once on the day of the experiment and other 24 hour parameters were used.

### **Experimental set up:**

All the five groups were fasted for over night prior to dosing. Following the period of fasting the animals were weighed and test substance was administered through “Rat oral intubation tube”.

After the administration of the test drug, food was withheld for 1 to 2hrs.

### **Observation:**

The following parameters were noted.

### **Central effects:**

#### **I. Stimulation**

- ❖ Hyper activity
- ❖ Piloerection
- ❖ Twitching
- ❖ Rigidity
- ❖ Irritability
- ❖ Jumping
- ❖ Colonic convulsion

## **II. Depression**

- ❖ Ptoxis
- ❖ Sedation
- ❖ Sleep
- ❖ Loss of traction
- ❖ Loss of Pinna reflex
- ❖ Ataxia
- ❖ Catatonia
- ❖ Loss of muscle tone
- ❖ Analgesia

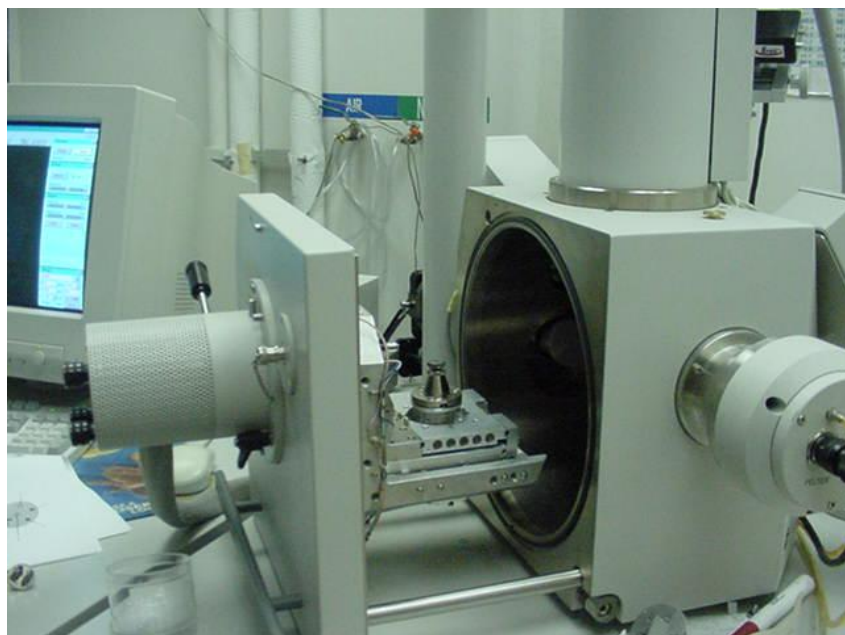
### **Autonomic Effect:**

- ❖ Straub's tail flicking
- ❖ Labouredly respiration
- ❖ Cyanosis
- ❖ Blanching
- ❖ Reddening
- ❖ Abnormal secretions

At the end of 24 hrs, the number of animals dead in each group was noted and the approximate LD<sub>50</sub> was determined. The animals were morphologically examined for any toxic symptoms.

## Result:

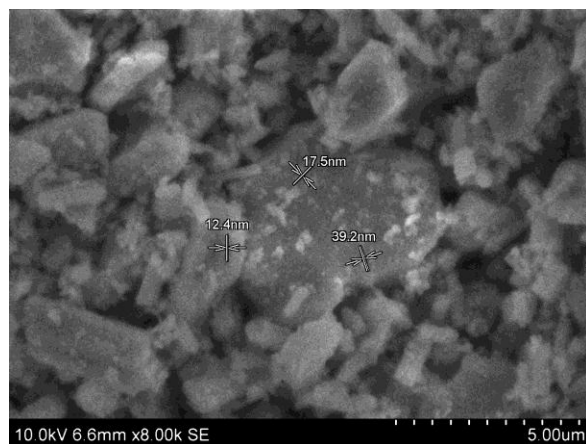
During the acute toxicity study none of the albino rat was found dead. During morphological examination of the rats no toxic symptoms were found. This proves the safety of the test drug.



**scanning electron microscope (SEM)**

A **scanning electron microscope (SEM)** is a type of [electron microscope](#) that produces images of a sample by scanning it with a focused beam of [electrons](#). The electrons interact with electrons in the sample, producing various signals that can be detected and that contain information about the sample's surface [topography](#) and composition. The electron beam is generally scanned in a [raster scan](#) pattern, and the beam's position is combined with the detected signal to produce an image. SEM can achieve resolution better than 1 nanometer.

Specimens can be observed in high vacuum, low vacuum and in environmental SEM specimens can be observed in wet condition.



## SEM ANALYSIS

Graphs shows the average size of the particle in **Mutsngan ilai chooranam** is 22.9nm.

## Fourier transform infrared spectroscopy (FTIR)



**Fourier transform infrared spectroscopy (FTIR)**<sup>[1]</sup> is a technique which is used to obtain

an [infrared spectrum](#) of [absorption](#), [emission](#), [photoconductivity](#) or [Raman scattering](#) of a [solid](#), [liquid](#) or [gas](#). An FTIR spectrometer simultaneously collects spectral data in a wide spectral range. This confers a significant advantage over a [dispersive](#) spectrometer which measures intensity over a narrow range of wavelengths at a time. FTIR has made dispersive infrared spectrometers all but obsolete (except sometimes in the near infrared), opening up new applications of [infrared spectroscopy](#).

The term *Fourier transform infrared spectroscopy* originates from the fact that a [Fourier transform](#) (a mathematical process) is required to convert the raw data into the actual spectrum. For other uses of this kind of technique, see [Fourier transform spectroscopy](#).

## CLINICAL ASSESSMENT

**AZHAL KEEL VAYU** is a disease mainly affecting the major weight bearing joints. Normally there is a change in the joint structure at certain age group. It affects mainly the knee joints, which do a lot of functions like flexion, extension and rotation etc.

In order to assess the efficacy of the “**Mutsangan ilai chooranam**” for Azhal keel vayu, a clinical trial was taken on 40 cases of different age in both sexes.

They were clinically diagnosed as Azhal keel vayu, according to Siddha literatures among them 32 patients were treated in outpatient department and 8 patients were treated in inpatient department of the Government Siddha Medical College, Palayamkottai.

Immediately after the admission, full clinical data were recorded and diagnosis was done on the basis of Siddha principles such as ENVAGAI THERVU, MUKKUTRAM etc. The admitted patients had different signs and symptoms of varying severity.

The routine blood investigations were done in each case, Radiological investigations were also carried out.



## **INCLUSION CRITERIA:**

For case selection

- Age group above 40 yrs.
- Pain in major joints (knee joints)
- Swelling
- Stiffness
- Limitation of movements
- Crepitation of the joints
- Aggravated pain during walking, sitting and squatting position
- Routine investigations
- X Ray finding of knee joints
- Signs and symptoms vary in its severity from patient to patient.

## **EXCLUSION CRITERIA**

- Age group below 40 yrs
- Sudden onset of excruciating pain, marked swelling and redness of the bigtoe.
- Raised level of Uric acid
- Involvement of smaller joints
- Migrating joint pain
- Mantoux test – positive

- Sputum for AFB – positive
- VDRL – positive
- RA Factor – positive
- Raised ESR
- Haemorrhagic Effusion
- Osteo sarcoma
- Osteo myelitis
- Traumatic cause

## **DIET AND ADVICE**

The patients were advised to reduce body weight and also they were advised to do knee joint strengthening exercises. The patients were advised to take easily digestible foods like rice kanjee, bread etc.

- To avoid Tamarinds.
- To avoid vayu patharthams like Potato, Dhal, Unripened Banana and sour items viz. butter milk, Curd and Tomato etc.
- To avoid cold, damp climate
- To avoid prolonged standing and walking
- Avoid stress.
- To avoid pungent, bitter tastes.

- Obese patients were advised to reduce their body weight in order to avoid strain.
- Advise to do quadriceps exercise.
- Advise to take rest but prolonged immobilization should be avoided as it leads to the stiffness of the joint, further incapacitating the patient.

During drug administration no adverse reactions were noted.

### **Exercise for strengthening muscles around the knee joint:**

Simple exercise that promote flexibility and strengthen the muscles around the knee can go long way towards warding off problems. In many cases, these exercise can also help hasten recovery after a knee injury. Weak or tight muscles are an important cause of knee injuries.

Hence, it is advisable to make the time and effort to strengthen the muscle around the knee. However, if one is already suffering from pain in the knee, these exercises should be performed after consulting a doctor. To derive maximum benefit from the following exercise, they should be performed once or twice a day, repeating every exercise five to ten times for each knee.



## **Thigh Firmer**

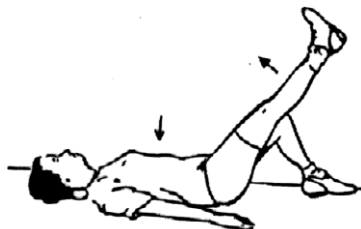
Sit on the edge of a chair with one leg stretched out in front and the heel resting on the floor; tighten the muscle that runs across in front of the knee by flexing the toes back. Simultaneously, push the back of the knee towards the floor and feel the stretch there as well as at the back of the ankle. Hold for 5 seconds. Repeat the same with the other leg.

## **Knee flexion and extension**



Sit straight on chair and bend the knee by pulling heel under the chair. Rest the foot on the toes. Hold for 5 seconds. Keep the foot relaxed and slowly raise it up to straighten the knee. Hold for 5 seconds and then slowly lower the foot to the floor. Repeat the same with the other leg.

## **Straight leg lift:**



Lie flat on the back with the stomach pulled in, the knee of one leg bent and the foot flat on the floor. Extend the other leg and lift it slowly as far as is comfortably possible, without bending the knee. Hold for 5 seconds and slowly lower the leg. Repeat the same with the other leg.

## **DRUG AND DOSAGE**

The test drug “**MUTSANGAN ILAI CHOORANAM**” was given to the patients at a dose of 1gm twice a day with luke’ warm water as the vehicle before meals. The drug was given for a maximum of 45 days. The drug was well accepted by all the patients.

## **OBSERVATION**

Routine investigations were done before and after treatment, Radiological investigations were also done before and after treatment. If patient complained of any other ailments during the treatment period they were treated with other Siddha Medicines. For in patients, time was noted for walking to a distance of 50 feet’s on admission and after treatment.

The results were assessed on the basis of the symptomatic relief obtained by the patients and by clinical examinations done daily in Inpatient department and once in seven days in outpatient department.

In the study of 40 patients 23 were males and the remaining 17 were females. Almost all the patients were labourers and farmers of poor socio economic status.

## **DRUG RESPONSE**

The course of treatment varied from 20-45 days most of the patients got no improvement within 7days. Mostly pain and stiffness were relieved from 7<sup>th</sup> -14<sup>th</sup> day of treatment and other symptoms subsided and relieved simultaneously during the further course of treatment.

31 cases had good response, 6 cases had fair response, and 3 cases showed no response. The drug had no adverse effect.

Clinical assessments of Azhal keel vayu are tabulated in the following tabular columns.

**Table: 5 Tabulation showing (Age wise, sex wise) distribution of patients.**

| Sl. No | Age in years | Sex  |        | Total |
|--------|--------------|------|--------|-------|
|        |              | Male | Female |       |
|        | 40-50yrs     | 7    | 6      | 13    |
|        | 51-60 yrs    | 14   | 13     | 27    |
| Total  |              | 21   | 19     | 40    |

**Table: 6 TABULATION OF RESULT**

| <b>Result</b> | <b>No of Patients</b> | <b>Percentage</b> |
|---------------|-----------------------|-------------------|
| Good response | 31                    | 77.5%             |
| Fair response | 6                     | 15%               |
| No response   | 3                     | 7.5%              |
| <b>Total</b>  | <b>40</b>             | <b>100%</b>       |

In the clinical trials done for 40patients, good response is obtained for 77.5%, optimum fair response is obtained for 15% and no response is obtained for 7.5%.In this study it was found that the test drug “**MUTSANGAN ILAI CHOORANAM**” possesses effective Anti inflammatory, Analgesic action there by reducing pain and swelling which was found clinically. Radiological findings revealed a marked reduction in the inflammation and swelling of soft tissue of the affected joints.

## BIO-STATISTICAL ANALYSIS

### Drug

**Mutsangan ilai chooranam– Azhal keel vayu.**

### Description of the study subjects

The clinical trials were described according to their sex and age distribution. They were also compared their ages between the sex as follows.

**Table – 1. Sex wise age distribution of clinical trials**

| Age group | Males |      | Females |      | Total |      |
|-----------|-------|------|---------|------|-------|------|
|           | No    | %    | No      | %    | No    | %    |
| 40 – 50   | 7     | 17.5 | 6       | 15   | 13    | 32.5 |
| 51 - 60   | 14    | 35   | 13      | 32.5 | 27    | 67.5 |
| Total     | 21    | 52.5 | 19      | 47.5 | 40    | 100  |

The Above table – 1 shows the sex wise age distribution of the clinical trials. The male participant of the study was 52.5% and the female was 47.5%.

**Table – 2. Comparison of age and sex wise distribution**

| Sex    | Age (years) |      | Difference of means | ‘t’   | d.f | Significance |
|--------|-------------|------|---------------------|-------|-----|--------------|
|        | Mean        | S.D  |                     |       |     |              |
| Male   | 61.91       | 11.7 | 0.91                | 0.739 | 38  | P<0.01       |
| Female | 61          | 6.99 |                     |       |     |              |



The above table – 2 compares the ages of the males and females . The mean ages of males was  $61.91 \pm 11.7$  years and the same of the females was  $61 \pm 6.9$  years. The difference between the means was 0.9 years and the same was statistically highly significant ( $P < 0.01$ ).

### **Assessment of pain of the legs**

The pain of the legs before and after treatment was assessed as follows.

**Table – 3. Assessment of the pain of the legs before and after treatment**

| Level of pain | Before treatment |      |          |      | After treatment |      |          |      |
|---------------|------------------|------|----------|------|-----------------|------|----------|------|
|               | Right leg        |      | Left leg |      | Right leg       |      | Left leg |      |
|               | No               | %    | No       | %    | No              | %    | No       | %    |
| No pain       | 3                | 7.5  | 8        | 20   | 24              | 60   | 30       | 75   |
| Mild pain     | 4                | 10   | 9        | 22.5 | 13              | 32.5 | 9        | 22.5 |
| Moderate pain | 22               | 55   | 13       | 32.5 | 2               | 5    | -        | -    |
| Severe pain   | 11               | 27.5 | 10       | 25   | 1               | 2.5  | 1        | 2.5  |
| Total         | 40               | 100  | 40       | 100  | 40              | 100  | 40       | 100  |

The above table – 3 compares the pain level of the legs before and after treatment. Before treatment 27.5% of the right legs had severe pain and the same after treatment was 2.5 % , similarly before treatment 25 % of the left legs had severe pain and the same after treatment was 2.5 % .

**Table – 4 Assessment of the time taking for 100 meter walk**

| <b>Time taking for<br/>100 meter walk<br/>(seconds)</b> | <b>Before</b>             |          | <b>After</b>              |          |
|---|---------------------------|----------|---------------------------|----------|
|   | <b>No of<br/>patients</b> | <b>%</b> | <b>No of<br/>patients</b> | <b>%</b> |
| 40 – 45   | -                         | -        | 7                         | 17.5     |
| 45 – 50   | 2                         | 5        | 12                        | 30       |
| 50 – 55   | 7                         | 17.5     | 14                        | 35       |
| 55 – 60   | 9                         | 22.5     | 3                         | 7.5      |
| 60 – 65   | 13                        | 32.5     | 3                         | 7.5      |
| 65 – 70   | 9                         | 22.5     | 1                         | 2.5      |
| Total   | 40                        | 100      | 40                        | 100      |

The above table – 4 compares the walking time for 100 meters before and after treatment. The maximum 32.5 % of the patients had taken walking time 61 – 65 seconds before treatment. After treatment the maximum 35 % of the patients had taken 50 – 55 seconds walking duration.

### Effectiveness of the drug

The effectiveness of the drug was assessed by the mean duration of 100 meter walking before and after treatment as follows.

**Table – 5. Effectiveness of the drug in the duration of walk for 100 meters before and after treatment.**

| Variable                           | Before |      | After |      | Difference of means |       | ‘t’   | d.f | Significance |
|------------------------------------|--------|------|-------|------|---------------------|-------|-------|-----|--------------|
|                                    | Mean   | S.D  | Mean  | S.D  | Mean                | S.D   |       |     |              |
| Walk time for 100 meters (seconds) | 63     | 5.76 | 51    | 6.41 | 12                  | 7.725 | 5.241 | 39  | P<0.001      |

The above table – 5 assesses the effectiveness of the drug. The mean walking time for 100 meters before treatment was  $60.7 \pm 5.76$  seconds. The same after the treatment was  $51 \pm 6.41$  seconds. The reduction of walking time for 100 meters  $12 \pm 7.725$  seconds was statistically very highly significant ( $P < 0.001$ )

### Response of the drug

The response of the drug by considering the factors which is responsible for the improvement was graded as good, fair , and poor .

**Table – 6 . Response of Mutsangan ilai chooranam in Azhal keel vayu.**

| <b>S.No</b> | <b>Response</b> | <b>No of patients</b> | <b>Percentage</b> |
|-------------|-----------------|-----------------------|-------------------|
| 1.          | Good            | 31                    | 77.5              |
| 2.          | Fair            | 6                     | 15                |
| 3.          | Poor            | 3                     | 7.5               |
|             | Total           | 40                    | 100.0             |

The reponse of the drug was shown in the above table – 6. Among the 40 patients, 31 (77.5 %) patients have shown good response. The remaining 6 (15 %) and 3 (7.5 %) patients have shown fair and poor response respectively.

## DISCUSSION

Azhal keel vayu is a disease which affects the knees. This disease originates due to over much of vali humour with increased Iyya humour and taking objectionable food and doing undeserved activities. The usage of mutsangan ilai chooranam helps to hold back the increased Azhal humour and Iyya humour and foremost Vatha humour. Special features of mutsangan ilai chooranam taste are bitter and Bio- Transformation is pungent and potency is heat.

The bitter taste holds back the Azhal humour, Iyya humour and changes its bad aspects. Since Bio- Transformation of this chooranam is bitter. This bitter taste holds back kapham to its normal state. The potency of this drug is heat. The excess heatness of this drug equalizes vadha humour kaba humour and brings back.

The vehicle of this drug is Luke warm water. It helps to easily absorbed and cures soolai, vadhathikkam, and thiridotham.

So this drug provides better relief to Azhal keel vaayu. This is proved with the help of above said Gunapadam analysis and the scientific analysis coming behind.

Biochemical analysis shown the presence of calcium, sulphate, chloride, starch, Ferrous iron, unsaturated compounds and amino acid.

Calcium and amino acid are useful for the tissue repair and body building and promotes immune system of the body.

Pharmacological analysis shown that the drug has got good analgesic activity. So it reduces pain in the joints and significant anti inflammatory action, so it reduces and significant anti inflammatory action. So it reduces the swelling in the joints.

Microbiological analysis shown that the drug has got sensitivity in klebsiella, staphylococcus aureus and moderate effect in Ecoli, streptococcus Pneumoniae.

Physio-chemical standardization report also reveals of mutsangan ilai chooranam.

Scanning electron microscope (SEM) analysis report graphs shows that average size of the particle in mutsangan ilai chooranam is 22.9nm. so it is easily digested.

FTIR analysis also reveals the particles and peak value of mutsangan ilai chooranam. In the clinical assessment of 40 cases selected 31 cases showed response, 6 cases showed fair response, 3 cases showed poor response.

Bio-statistical analysis shown that the drug is effective in controlling pain and swelling in azhal keel vayu.

Radiological findings shows reduced soft tissue swelling. The improvement was proved by the alleviation of signs and symptoms present before the treatment.

During the clinical trial the patient showed no adverse effect.

## SUMMARY

The drug “**Mutsangan ilai chooranam**” has been selected for the study to establish its efficacy in treating Azhal keel vayu.

A brief description pertaining to its botanical aspect, phytochemical constituents and Gunapadam aspect has been referred. A review of the literatures about the drug and its significance in medicine since ancient period has been done. Collected information about the drug from various literatures and websites has been referred.

Bio-chemical analysis of the drug shows the presence of **Calcium, Sulphate, Chloride, Starch, Ferrous Iron, Unsaturated Compounds and Amino Acid.**

Pharmacological analysis shows that the drug has got **good analgesic activity and significant acute anti-inflammatory activity, chronic anti – inflammatory activity.**

Anti Microbial susceptibility test report shows that the drug has got **sensitive to Klebsiella, Staphylococcus aureus, Moderate for Ecoli, Streptococcus pneumonia.**

**SEM** and FTIR analysis also reveals the particles size and peak value of mutsangan ilai chooranam.

From the clinical assessment, it is inferred that **Mutsangan ilai chooranam** has good efficacy in treating Azhal keel vayu. During the clinical trial the patients showed no untoward effects. Biostatistical analysis also proved that this drug has got significant effect in treating Azhal keel vayu.

## CONCLUSION

It is concluded that the drug “**Mutsangan ilai chooranam**” is an effective drug in Azhal keel vayu for reducing its severity and difficulties without producing any untoward effects.



**ANTISPASMODIC AND ANTI HISTAMINIC ACTIVITY OF  
KARPOORA SILAJITHU PARPAM**

## INTRODUCTION

The Siddha medicine, one of the ancient medicine is being used by the people of nowadays. This Siddha medicine was handled by the Siddhars who attained the eighteen

Siddhar states and is being practised by the Siddha medical practitioners till to dates.

Siddha system is based on “PANJA BOOTHA PANJEEKARANAM” concept and “MUKKUTRAM” (THREE HUMOURS) concept. Our body undergoes the MUKKUTRA CHANGES according to the surrounding conditions and leads to the disorder of body and mind.

<sup>1</sup> “பாரப்பா பூதமைந்து மண்ணீர்தேயுபரி வாயு வாகாய  
மைந்தினாலே சேரப்பா சடமாச்சு.”

<sup>2</sup> Both ANDAM (universe) and PINDAM (Human body) are consisting of “FIVE BOOTHAAS”

1. Earth(பூமி),2.Water(நீர்),3.Fire(தீ),4.Wind(காற்று),5.Space(ஆகாயம்)

The above said concept is mentioned in the following quotations,

<sup>3</sup>“மண்ணினில் ஒன்று மலர் நீரு மங்காகும்  
பொன்னினில் அங்கி புகழ் வளி யாகாயம்  
மன்னு மனோ புத்தி யாங்காரம் ஓரொன்றாய்  
உன்னின் முடித்த தொரு பூத சாயமே.”

According to the variation in the climatic condition, the Panja pootham and Mukkutram (vatham,pitham,kabam) of our body varies.

---

1.2. சதகநாடி-சித்த மருத்துவ நோய் நாடல் நோய் முதல் நாடல் முதல் பாகம் பக்கம் எண்:4.

3.திருமந்திரம் பாடல்:2112.

<sup>4</sup> So the SEVEN FUNDAMENTAL BODY ELEMENT such us

1. Plasma (சாரம்) -Responsible for growth, development and nourishment
  2. Blood(செந்நீர்) -Responsible for nourishing muscles
    - a. importing colour and improving intellect.
  3. Muscle(ஊண்) -Responsible for the shape of the body.
  4. Fatty tissue(கொழுப்பு) -Responsible for oil balance and
    - a. Lubricating joints.
  5. Bone(என்பு) -Responsible for body structure
    - a. posture and movement.
  6. Brain (மூளை) -Responsible for strength.
  7. Sperm(சுக்கிலம்) or
  8. Ovum(சுரோணிதம்) -Responsible for the reproduction.
- are disturbed and disease is caused.

In Siddha treatment the body condition is inspected carefully for the following conditions such as <sup>5</sup> “EN VAGAI THERVU”

- 1.Tongue (நாக்கு ), 2.Colour (நிறம்), 3.Speech(மொழி), 4.Eye(விழி))
- 5.Touch(தொடுபணர்வு), 6.Faeces(மலம்), 7.Urine(சிறுநீர்), 8.Pulse(நாடி).

“NEERKURI” & “NEIKURI” tests and cause of the disease is traced, treatment is given. This is explained in Thirukkural,

<sup>6</sup> “நோய் நாடி நோய் முதல் நாடி அது தணிக்கும்  
வாய் நாடி வாய்ப்பச் செயல்.”

In that basis the author is trying to find the remedy for the dreadful disease “BRONCHIAL ASTHMA” using “KARPOORA SILASATHU PARPAM.”

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4,5.நோய் நாடல் நோய் முதல் நாடல் பாகம்-1 பக்கம்:240.,129.; 6.திருக்குறள் பாடல்: 948.-  
திருவள்ளுவர்.

## AIMS AND OBJECTIVES

The main motto of this dissertation work is to Scientific prove that the drug KARPOORA SILASATHU PARPAM (Calx of karpooora silasathu) is a natural effective remedy for the disease ERAIPPU ERUMAL. It is one of the kaba diseases in Siddha system of medicine and can be compared to the BRONCHIAL ASTHMA in modern science.

ERAIPPU ERUMAL is one of the most common long term disease of children but adults can have asthma too. It is a disease that affects air ways of lungs. It causes wheezing, breathlessnees, chest tightness and coughing at night or early morning.

<sup>7</sup> The prevalence of asthma increased over the later part of last century. ERAIPPU ERUMAL (Bronchial Asthma) affects 300 million people worldwide and 100 million people will be diagnosed by 2025. In India the estimated burden of asthma is believed to be more than 30 million. Socio-economic impact is enormous. Poor control leads to days lost from the school or work.

In this study author selected KARPOORA SILASATHU PARPAM for the study of ERAIPPU ERUMAL. In Siddha literature, it is told that KARPOORA SILASATHU PARPAM can be given to ERAIPPU ERUMAL.

<sup>8</sup> The parpam was prepared based on the reference in KAI KANDA ANUBOGA VAITHIYA PERUNKURAL.

I have selected this drug because,

- It is essential to find out a simple drug to overcome Eraippu erumal.
- The drug is easily available.
- It has no adverse effect.
- It has easily administered.
- It also effective in smaller doses.
- No other person studied so for.

In this dissertation the analysis of KARPOORA SILASATHU PARPAM is done in the following aspects,

- |                             |                             |
|-----------------------------|-----------------------------|
| 1. Chemical aspects         | 6. Anti-Microbial analysis  |
| 2. Botanical aspects        | 7. Clinical assessment      |
| 3. Gunapadam aspects        | 8. Bio statistical analysis |
| 4. Biochemical analysis     | 9. Toxicity study           |
| 5. Pharmacological analysis | 10. Heavy metals analysis   |

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7. Davidson's principles and practice of medicine, 21<sup>st</sup> edition Page No. 662.

8. கை கண்ட அனுபோக வைத்திய பெருங்குறள். - தேவேந்திர பாவனர். பக்கம்: 79.

## REVIEW OF LITERATURE

### GUNAPADAM ASPECT

#### கர்ப்பூரச் சிலாசத்து

<sup>9</sup> கர்ப்பூர சிலாசத்து ஒரு தாதுப்பொருளுள் உபரசம் என்னும் பிரிவைச் சார்ந்தது.

உபரசம் என்னும் சொல்லால் வழங்கப்படும் இரசம் என்னும் சரக்கு, சிவம் தனித்தும் பல்லுயிர்களிற் கலந்தும் இருப்பது போன்று, தனித்தும் ஒவ்வொரு சரக்கிலும் அதனதன் தன்மைக்கேற்ப “சரக்கிற் கலந்திடு சீவன்” என்னுமாறு கலந்தும் இருப்பதாக கூறப்படுகின்றது.

ஆகையால் சிவமில்லாப் பொருள் இல்லாதது போன்று உலகில் இரசமில்லாச் சரக்கு இல்லை என்பது துண்பு. ஆனால் இதில் காணமுடியாத குறைந்தளவில் உள்ளதால் இதனை உபரசம் என்று சொல்லப்படுகின்றது.

உபரசங்கள் நூற்றியிருபது உள்ளன என்று போகர் காரசாரத்துறைக் கூறுகின்றது.

<sup>10</sup> “தாளப்பா உபரச நூற்றிருபதாகும்.”

இந்த 120 உபரசத்தில் கர்ப்பூர சிலாசத்துவும் ஓர் உபரசமாகும். அதுவும் மண் பூத சரக்காகும். இதனை,

<sup>11</sup> “சொல்லக்கே ஞுபரசத்தின் பூதந்தன்னை  
மேலான சிலாசத்தும் பூமியாச்சு;  
வேறுபெயர்கள்

காயசித்தி சுண்ணம், சலப் பிருதிவி, கல்க் குரு, குலசிலா  
மணி, காந்தியோன், சுன்னத்தோன், உபரசித்திலாதி

<sup>12</sup> “கர்ப்பூர சீலையுட பேரைக் கேளு

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9. குணபாடம் தாது சீவ வகுப்பு-டாக்டர். ஆர். தியாகராஜன் L.I.M. பக்கம்: 14ம் பதிப்பு-1992 page no: 1

10, 11. போகர் காரசாரத்துறை 60, குணபாடம் தாது சீவ வகுப்பு-டாக்டர். ஆர். தியாகராஜன். பக்கம்: 2, 17.

12. போகர் முனி நிகண்டு-1200 பக்கம் எண்: 13.

இதனை,

கடுசான காயசித்திக் கடுத்த சுண்ணஞ்

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உபரசத்திலாதி யாஞ் சுண்ணமாமே.”

என்ற போகர் முனி நிகண்டு பாடல் மூலம் அறியலாம்.

<sup>13</sup> மேலும் பஞ்ச காவிய நிகண்டில் சிலாசத்திற்கு,

பழமை, மலர் வலாம், கலசத்து, நீழ சத்து

அடியுப்பு, வலசத்து, வாலசத்து, புலசத்து, சலைசத்து

போன்ற பெயர்களும் உள்ளன என்பதை,

“பழமையாம் மலர் வலா கலசத் தொன்றும் பேரு

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தழைத்த சிலாசத்தினிட அதீதப்பேரே.”

என்ற பாடலால் அறியமுடிகின்றது. அதேபோல் சட்டைமுனி நிகண்டில்,

சலப்பிருதிவி

கற்கரு

குலசிலாமணி

காந்தியோன்

என்பன போன்ற பெயர்கள் உள்ளன என்பதை,

<sup>14</sup>“சலத்திற் பிருதிவி சேத சிலாசத்து

அலத்திய கற்கரு வாதத்தினுடன் விந்து

குலத்தின் சிலாமணி கூறிய காந்தியோன்

கலத்திய பேரெல்லாங் கற்பூர சத்துக்கே.”

என்ற பாடலால் அறிந்து கொள்ள முடிகின்றது. மேலும் இது மலைக்குள்

இருந்து வருவதால் <sup>15</sup>“கல்சத்து,கிரிசாதம் என்றபெயர்களும் உள்ளன.

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13.பஞ்ச காவிய நிகண்டு-பக்கம் எண்:135.

14. சட்டைமுனி நிகண்டு-1200 -பக்கம் எண்:28. 15.தமிழக சித்த வைத்திய குருகுலம்-  
பக்கம் எண்:99.

## VERNACULAR NAMES

|                        |                                       |
|------------------------|---------------------------------------|
| <sup>16</sup> Sanskrit | - Silajit, Silaras.                   |
| English                | -Asphalt, Mineral pitch, Jew's pitch. |
| Hindi                  | -Silajita.                            |
| Gujarati               | -Silajita.                            |
| Maharashtra            | - Silajita.                           |
| Kannadam               | -Silajita.                            |
| Bengali                | -Silajita.                            |
| Arab                   | -Hajar -ul-musa.                      |
| Persia                 | -Momiai, Faqurul yahud.               |

## SOURCES

Ejected out of rocks during hot weather in the lower Himalayas, Vindhya and other mountain tracts and Nepal where iron abounds, naturally flowing out from between the fissures in the rock ;

Alum earth of Nepal which is sold in Calcutta as white shilajit is quite a different substance from the shilajit used in the Hindu Materia Medica. A product called “Momia” resembling silajit, is obtained from some of the mountain in Arabia and Persia.\_(chopra).

<sup>17</sup> A white stone resembling alum –crystallised foliated gypsum.It is a bazaar drug and is supposed to be available in places frequented with mist. It is probably Ammonia, Iron alum(being conjoined with peroxide of iron) known as Silajit or Alum earth of the Nepal.

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16.The Indian Materia Medica .page no:23.;

17.T.V.சாம்பசிவம் பிள்ளை அகரதி.பக்கம் எண்:1198.



<sup>18</sup> Silajit available at Katmand (Nepal) is the best and most efficacious. In may and june, owing to the strong heat of the sun, shilajitu exudes from mountains like the Himalayas, the Vindhya chains etc. It may also be obtained from decomposition of vegetable matter on the earth.

சிலாசத்து உற்பத்தியை போகர்,

<sup>19</sup> “உயானித் வற்பத்திச் சொல்லக்கேளு

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புலைத்துநின்ற பொன் வெள்ளிச் செடிபோலொக்க

பிறக்கின்ற சிலாசத்து மிகுதியுண்டே.”

என்றபாடல் மூலம் கூறுவதை அறியலாம்.

<sup>20</sup> “முதுவேனிற் பருவந் தன்னில் மொய்க்கதிர் வெப்பந்தாக்க

- - - - -

- - - - - பிசினைப் போன்று

பதிநிலா வெளியிற் றோன்றும் பண்புடை ரஸம்சிலாஜத்.”

## VARIETIES AND CHARACTERS

<sup>21</sup> There are two varieties of Silajit

### 1. Gomuthra silajit

Which is dark sticky and has a bitter taste and of a smell resembling cow's urine.

### 2. Karpooa silajit

Which occurs in white plates and has a camphar smell.

<sup>22</sup> கர்பூரசிலசத்து கர்பூர மணத்தையும் படிக ஒளியையும் பெற்றிருக்கும் என்றும் மற்றொரு வகை பசு மூத்திரத்தின் மணத்தையும் நிறத்தையும் பெற்றிருக்கும் சிலாசத்திற்கு கோமூத்திரசிலாசத்து என்று பெயர்.

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18. Pharmacopoeia indica-page no:35 ; 19. போகர் ஏழாயிரம் மூன்றாம் காண்டம்-பக்கம் எண்:101.

20. பதார்த்த பஞ்ச குண மஞ்சரி -பாடல் எண்:202;பக்கம்:226 ; 21. Pharmacopoeia Indica page no:35.

22. குணாபாடம் தாது சீவ வகுப்பு - Dr . R . தியாகராஜன். LIM. பக்கம் எண்:409.

<sup>23</sup> Silajit is of bitter taste and of a smell resembling cow's urine. This is known as Gomoothra silajit. On igniting, it leaves a large quantity of ash consisting of Lime, Magnesia, Silica and oxides of Iron.

Four varieties of silajit are described by the ancient Hindu writers,

1. The gold silajit which is red.
2. The silver silajit which is white.
3. The copper silajit which is blue coloured.
4. The iron silajit which is blackish brown.

Blue and Red Silajit are not found commonly.

<sup>24</sup> சிலாசத்து இயற்கையில் கிடைக்கும் இடத்தின் தன்மையைப் பொருத்து,

1. கனக சிலாசத்து(சிவப்பு) -தங்கம் உள்ள மலையில் பிறந்தது.
2. வெள்ளி சிலாசத்து(வெண்மை)-வெள்ளி உள்ள மலையில் பிறந்தது.
3. தாம்பிர சிலாசத்து(நீலம்) -செம்பு உள்ள மலையில் பிறந்தது.
4. அய சிலாசத்து(கருப்பு) -இரும்பு உள்ள மலையில் பிறந்தது.
5. தகர சிலாசத்து -தகரம் உள்ள மலையில் பிறந்தது.
6. வங்க சிலாசத்து -வங்கம் உள்ள மலையில் பிறந்தது.

இவற்றுள் கனக சிலாசத்தும்(ஏம சிலாசத்து) தாம்பிர சிலாசத்தும் கிடைப்பதரிது. வெண்மைநிறம் கொண்ட வெள்ளி சிலாசத்தும்(கர்பூர சிலாசத்து) கருப்பு நிறம் கொண்ட அய சிலாசத்தும்(கோமூத்திர சிலாசத்து) பரவலாகக் கிடைக்கின்றது.

<sup>25</sup> ஏம சிலாசத்து (கனக சிலாசத்து)-வாத பித்த நோய்களிலும், கர்பூர சிலாசத்து(வெள்ளி சிலாசத்து) -கப பித்த நோய்களிலும், நீல சிலாசத்து(தாம்பிர சிலாசத்து) -கப நோய்களிலும், கோமூத்திர சிலாசத்து(அயசிலாசத்து)-முக்குற்றப்பிணிகளிலும், காயகற்ப மாகவும், மூப்பு நீக்கவும் பிரயோகிக்க பலனுண்டாகும்.

23. The Indian materia medica- page no:24.

24. அஷ்டாங்க கிருதயம்-பக்கம் எண்:5

25. போகர் ஏழாயிரம் மூன்றாம் கண்டம்- பக்கம் எண்:101.

<sup>26</sup> A sample of white silajit which is considered to be more effective than the block variety. - Chopra.

<sup>27</sup> கர்ப்பூரசிலாசத்து சிவப்பகவும் வெண்மையாகவும் இருக்கும். இவற்றுள் வெண்மையே உயர்வானதாகும்.

**இரு வகை சிலாசத்துவின் உபயோகம்**

“மற்றிதன் வகைகோமூத்ர மருவு கர்ப்பூரமென்று

முறைரஸாயனதிற் சேர்ப்பர்

உற்ற கர்ப்பூரமற்றையுயர் பஸ்மந் தனக்கே யாகும்.”

சிலாசத்து பொதுவாய் இரு வகைப்படும்.அவற்றுள்,கோமூத்திர

சிலாசத்து-இரசாயண மருந்துகளிலும் கர்ப்பூர சிலாசத்து-உயர்ந்த பஸ்ப மருந்துகளாக பிரயோகிப்பார்கள்.

<sup>28</sup> கர்ப்பூர சிலாசத்துவின் அனுபானம்

சுத்த சலம், பசும்பால், கோமூத்திரம்,கஞ்சி,பலக்கசாயங்கள்,

மாம்ஸரசம்,காடி முதலிய அனுபானங்களில் சிலாசத்துவை உபயோகிக்கின் எல்லாப் பிணிகளும் போகும்.நோயாளி சிலாசத்துவை உட்கொண்டுவரின் ஆரோக்கியத்தை காத்து ஆயுளை விருத்தி செய்யும்.

<sup>29</sup> சிலாசத்துவின் பத்தியம் அதனை உபயோகிக்க வேண்டிய அளவு காலம்

முதலியவை,

குரு குணமும் தஹிக்கும் தண்மையும் உள்ள பதார்த்தங்களையும்

கொள்ளையும் நீக்கி இவற்றை உபயோகிக்கின் இதன் குணம்

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26.The Indian material medica-page no:25. 27.அனுபோக வைத்திய நவநீதம்- பாகம் 2 பக்கம் எண்:161.

28.பதார்த்த பஞ்சகுண மஞ்சரி-பாடல் எண்:192.

அதிகரிக்கும்.இதனை ஒன்று,அரை,கால் பலங்களாக 1 மண்டலம்,1/2 மண்டலம்,1/4 மண்டலம் சேவிப்பது முறையே உத்தமம்,மத்திமம், அதமம் என்க.

## ORGANOLEPTIC CHARACTER AND ACTION

|                            |                    |
|----------------------------|--------------------|
| Taste(சுவை)                | - sweet(இனிப்பு)   |
| Potance(தன்மை)             | - coldness(தட்பம்) |
| Bio-transformation(பிரிவு) | - sweet(இனிப்பு)   |

<sup>30</sup> கர்பூர சிலாசத்துவின் நிறம் குணம்

“வெண்சிலா சத்துவின் தன்மை மிகு கடுமதுரஞ் சீதம்

கண்கொளாக் கபபித்ததைக் கண்டிக்குந் திறத்ததாகும்.”

சிலாசத்து இனிப்பு சுவையையும் வெண்நிறத்தையும் சீத வீரியத்தையும் உடையது. இது கப பித்தத்தை கண்டிக்கும்.மேலும் பித்த பாண்டுவை குணப்படுத்தும்.

## ACTIONS

|                        |                   |                        |
|------------------------|-------------------|------------------------|
| <sup>31</sup> Diuretic | Lithnotriptic     | Respiiratory stimulant |
| Disinfectant           | Expectorant       | Locally antiseptic     |
| Anodyne                | Paraticide        | Anti phlogistic        |
| Intestinal Antiseptic  |                   | Alterative             |
| Tonic                  | Slightly Laxative | Chalaogue              |

<sup>32</sup> இதற்கு, Diuretic (சிறுநீர்பெருக்கி)

Lithnotropic (கற்கரைச்சி)

Astringent (துவர்ப்பி)

Haemostatic (குருதிப்பெருக்கடக்கி)

Tonic-Nutrient (உடல் உரமாக்கி) முதலிய செய்கைகள்

உள்ளன.

29.30.பதார்த்த பஞ்சகுண மஞ்சரி.பக்கம் எண்:222&224.

31. The Indian materia medica-page no: 28. ; 32.குணபாடம் தாதுசீவ வகுப்பு பக்கம் எண்:398.

<sup>33</sup> மேலும் சிலாசத்திற்கு

Anti tridosha (முக்குற்றமகற்றி) என்ற செய்கையும் உண்டு.

### பொதுக் குணம்

<sup>34</sup> “கல்லடைப்பு மேகங் கன தூலம் வித்திரதி

சொல்லடைக்கு நீருகற் சோணிதக்கான்-மெல்லிடையார்க்

கில்லகச்சத் தில்லை யெனு மிந்திரிய நட்டமுமாங்

கல்லகச் சத் தில்லையெனுங் கால்.”

சிலாசத்தினால் கல்லடைப்பு ,சீமேகம் ,வித்திரதி ,அதி தூலம்,

மூத்திரக்கிரிச்சரம், சோணித வாதம், சந்ததிக்கு ஏதுவான விந்து நஷ்டம்

இவைபோம். மற்றும்இதனைப் பிரமேகம், உள்விரணம், இரத்தக் கொதிப்பு,

இரத்த பித்த நோய், கபநோய்,கக்கிருமல், அதிசாரம் முதலிய நோய்களிலும்

வழங்கலாம்.

<sup>35</sup> தூய்மை செய்த சிலாசத்தால்பாண்டு,பிரமேகம்,சுரம்,பிலீக

நோய்,கபநோய்,வாதநோய்,அனல்மந்தம்,குட்டநோய்,இராசநோய்,

உன்மத்தம்,வீக்கம்,சர்க்கரைநோய்,நுண்புழுநோய்,மார்புவலி,மூல

நோய்,ஆமிலபித்தம்,வயிற்றுநோய்,மஞ்சள்நோய்,கல்லடைப்பு

நோய்,மூத்திரகிரிச்சரம்,சிரங்கு,முதுமை முதலியவைகள் தீரும்.

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33. தமிழக சித்த வைத்திய குருகுலம் பக்கம் எண்:99.

34.குணபாடம் தாது சீவ வகுப்பு- டாக்டர்.ஆர்.தியகராஜன். பக்கம் எண்:398,399.

35.அனுபோக வைத்திய நவநீதம்,பாகம் 2- பக்கம் எண்:162.

## சுத்தி முறைகள்

- கர்ப்பூரச்சிலாசத்தைக் கட்டியாயெடுத்து கற்சுண்ணம் நீற்றிய சுண்ணாம்பிற்குள் வைத்து அல்லது மேலே குழம்பாய் தளும்பப் பூசிவெய்யிலில் வைத்து உலர்த்தி அதை மறுபடியும் எடுத்து சுண்ணத்தையுதிர்த்து எடுக்க சுத்தியாகும்.
- <sup>38</sup> கர்ப்பூர சிலாசத்தைக் கல்வத்தில் இட்டுப் பொடித்து தாமரைக் கிழங்கு சற்றைச் சிறுக சிறுக வார்த்து மூன்று மணி நேரம் அரைத்து வில்லை செய்து வெய்யிலில் உலர்த்தி எடுத்துக் கொள்ளத் தூய்மையாகும்.
- <sup>39</sup> சிலாசத்தைப் பெருந்துண்டுகளாகச் செய்து இளநீரில் போட வேண்டும். இளநீரானது சிலாசத்திற்கு மேல் இரண்டு அங்குலம் அதிகமாக இருக்க வேண்டியது. 24மணிநேரம் ஊறவைத்து அதிலுள்ள இளநீரை வடிகட்டி நீக்கி முன்போலவே புதியதாக இளநீரை விட்டு 24மணிநேரம் ஊறவைத்து இறுத்து நீக்கி மூன்றாம் தடவையும் முன்போல் இளநீர்விட்டு 24மணிநேரம் ஊறவைத்து இறுத்துத் தண்ணீரை விட்டுச் சுத்தமாகக் கழுவி உலர்த்திக் கொள்ள தூய்மையாகும்.
- <sup>40</sup> கற்றாழைச்சாற்றில் போட்டு 3 மணிநேரம் எரித்து எடுத்து தண்ணீரில் கழுவி உலர்த்த சுத்தியாகும்.
- <sup>41</sup> ஏலக்காய் கசாயத்தை ஊறவைத்தால் சுத்தியாகும்.
- <sup>42</sup> எலுமிச்சப்பழச்சாற்றில் ஊறவைத்தெடுக்க சுத்தியாகும்.

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38.அனுபோக வைத்திய நவநீதம் பாகம்-2 பக்கம் எண்:161.

39.அகஸ்தியர் வைத்திய காவியம் 1500-பக்கம் எண்:19.

40.அனுபோக விளக்கம் MSS ஆசான்.

41.ரஸ ரத்தின ஸமுச்சயம் பக்கம் எண்:19.; 42.நம் நாட்டு வைத்தியம் பக்கம் எண்:263.

## GEOLOGICAL ASPECT

### கர்ப்பூரசிலாசித்து

<sup>43</sup> Chemical name – Hydrus calcium sulphate

Geological Name – Salenite

<sup>44</sup> On igniting its leaves a large quantity of ash consisting of lime , magnesia, silica and oxides of iron.

It does not contain any compound of the nature of an alkaloid. The following table shows the percentage of dried extracts after distilling the solvents.

| Solvent       | Crude salijit in percentage | Purified salijit in percentage |
|---------------|-----------------------------|--------------------------------|
| Chloroform    | 2.15%                       | 5.88%                          |
| Ethyl acetate | 1.12%                       | 1.37%                          |
| Alcohol(80%)  | 29.25%                      | 28.32%                         |
| Water         | 22.66%                      |                                |

Moisture was determined by drying the substance in the steam oven at a temperature not exceeding 90 deg. Celcius, All minoids were calculated from the total nitrogen, determine by kjeldhal's process (modified) after deducting the percentage of nitrogen in the Hippuric acid precent.

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43.The test book of minerology-page no:759.

44.The Indian materia medica-25,26.

| <b>The mineral constituents</b>              | <b>crude salijit</b> | <b>pure salijit</b> |
|--|----------------------|---------------------|
| 1.moisture                                   | -12.54%              | -29.03%             |
| 2.Loss of ignition                           | -64.58%              | -52.03%             |
| 3.Ash  | -22.88%              | -18.34%             |
| 4.Silica(residue insoluble in HCl)           | -4.60%               | -2.69%              |
| 5.Iron( $\text{Fe}_2\text{O}_3$ )            | -0.51%               | -0.64%              |
| 6.Alumina( $\text{Al}_2\text{O}_3$ )         | -2.26%               | -2.61%              |
| 7.Lime( $\text{CaO}$ )                       | -6.83%               | -4.82%              |
| 8.magnesia( $\text{MgO}$ )                   | -1.29%               | -1.20%              |
| 9.Potash( $\text{K}_2\text{O}$ )             | -4.60%               | -3.81%              |
| 10.Sulphuric acid( $\text{SO}_3$ )           | -0.64%               | -0.97%              |
| 11.Chloride( $\text{NaCl}$ )                 | -0.26%               | -0.57%              |
| 12.Phosphoric acid( $\text{P}_2\text{O}_3$ ) | -0.28%               | -0.24%              |
| 13.Nitrogen                                  | -3.64%               | -3.36%              |

Salijit is component of the following substances

#### **Organic constituents**

|                             | <b>Crude salijit (%)</b> | <b>pure salijit(%)</b> |
|-----------------------------|--------------------------|------------------------|
| Moisture                    | -12.54%                  | -29.03%                |
| Benzoic acid                | -6.82%                   | -8.52%                 |
| Hippurric acid              | -5.53%                   | -6.13%                 |
| Fatty acid                  | -2.01%                   | -1.36%                 |
| Resin and waxy matter       | -3.28%                   | -2.44%                 |
| Gums                        | -15.59%                  | -17.32%                |
| Albuminoids                 | -19.61%                  | -16.12%                |
| Vegetable matter,sand, etc, | -28.52%                  | -2.15%                 |



It contains besides gums, albuminoids, traces of resins and fatty acids, a large quantity of Benzoic acids and hippuric acids and their salts.

It contains besides gums, albuminoids, traces of resins and fatty acids, a large quantity of Benzoic acids and hippuric acids and their salts.

<sup>45</sup> From the above report of Mr. Hooper, Dr. Hemachandra Sen infers that “Silajatu is a hydrocarbon of bituminous nature. The waxy substance which can be extracted from it with ether or alcohol, and which retains the peculiar odour of the drug appears to be the active principle. Fire destroys the efficiency of this waxy substance, therefore the Sanskritwriters advice that the pure Shilajatu should be extracted with the aid of the sun’s rays. Boiling the solution of Shilajatu for hastening the evaporation of water, spoils its therepecetic value”.

|               |                  |        |
|---------------|------------------|--------|
| <sup>47</sup> | Sulphur trioxide | -46.6% |
|               | Lime             | -32.5% |
|               | Water            | -20.9% |

### **Therepecetic uses**

- <sup>48</sup> In various parasitic skin diseases Shilajatu may be used with much benefit.
- Decoctions and juices of fruits, like lemons and pine apples, may be preserved for a long time by the addition of Shilajatu. The only drawback is that there is a faint smell of Shilajatu in the preparation thus preserved.

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47. Pharmacopoeia Indica-page no :37,38.; 48. The Indian materia medica-page no:28, 30,31,32.

- In bleeding or painful piles Shilajatu is very efficacious for it regulates the action of the liver.
- Tropical Medical school give their findings that silajit has no effect on either the blood-sugar content or the urine sugar in the diabetes.
- Silajit is used by the vaidyas in acute and **Chronic Bronchitis** and Benzoic acid and Benzoates are administered especially for children and to feeble persons with profuse secretion. It promotes expectoration probably reflexly by causing irritation of the throat and stomach.
- In **pulmonary phthisis**, Shilajatu is very useful owing to its beneficial effect on the digestive and **respiratory systems**. It is most suitable for those cases where there is great thirst and burning sensation, as in diabetic phthisis. Owing to its above properties, Shilajatu may be used with advantage even in intestinal tuberculosis.
- In sexual weakness it is generally administered with Aswagandha (withania somnifera) and other allied drugs.
- In chronic gonorrhoea and gleet, shilajatu is used with prepared oxides of tin, lead, silver, etc.
- <sup>49</sup> Charaka says, "There is hardly any curable diseases which cannot be controlled or cured with the aid of shilajit. It is used by Kavirajas and Hakims in a great variety of diseases. It is specially employed in genito-urinary diseases and in Diabetes, in Gall stones, Jaundice, enlarged spleen, Fermentative dyspepsia, Worms, Digestive troubles, piles, adiposity, Anasarca, Renal stone, renal and Bladder Calculi, Anuria etc., Hysteria, Neurasthenia, epilepsy and Insanity Nervous diseases,

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49. The Indian material medica-page no:28, 30,31,32.

- Amenorrhoea, Dysmenorrhoea, and Menorrhagia, Scrofula, Tuberculosis, Phthisis and Leprosy, Eczema, Elephantiasis, Anaemia, Anorexia, Biliary congestion, **chronic Bronchitis, Asthma**, Fracture of bones, etc, In Diabetes in which reduces the quantity of sugar and urine. But it increases the quantity of urea; therefore it should never be given in uric acid calculus.
- Silajit is used by the Hindu Physicians in acute and **chronic bronchitis** and Benzoic acid and Benzoates and administered in these conditions in the western medicines, especially for children and to old feeble persons with profuse thin secretion.
- The vaidyas prescribe shilajit in Arthritis and **pulmonary Tuberculosis**. 30 years ago Benzoid acid and its salts enjoyed a reputation in the Western medicine as a remedy for these conditions but are given up.
- It is very useful in **acute** and **Chronic Bronchitis** and in **Bronchiectasis**, in **Asthma** with bad liver and indigestion, in the Asthma of Gouty people, in Pulmonary phthisis, in diabetic phthisis, and intestinal tuberculosis.
- Dr.H.C. Sen concludes that silajit should be tried extensively in obesity. Diabetes, Dyspepsia, anasarca, Enlargement of liver and spleen, Painful and Bleeding piles, **Asthma**, Strangury, anal diseases and functional uterine troubles.
- Ray(1930) has shown that infusions of extracts of silajit produce a rise in Blood pressure and stimulation of Respiration in experimental animals- (Chopra's "ID of I" Page no:437-438)

## BOTANICAL ASPECT

### VENTHAYAM

<sup>50</sup>**Botanical name** -Trigonella foenum graeceum,Linn.

**Family name** -Papilionaceae

#### Vernacular Names:

|           |                          |
|-----------|--------------------------|
| English   | -Fenugreek,Greek, Hayes. |
| Telugu    | -Menthulu                |
| Malayalam | -Vluva,Venthyam          |
| Kannadam  | -Mentha, Gida            |
| Sanskrit  | -Methi                   |
| Hindi     | -Methi                   |
| Arab      | -Hulba                   |
| Persia    | -Shamlita                |

#### Part used

Seeds, Pods and Leaves.

#### Constituents

“Fresh vegetable contains 77% moisture and the dried material contain Ether Extract 4.80%; Albuminoids 16.21% (cont’g. Nitrogen 2.61%); soluble Carbohydrates 56.11%;Woody fibre 11.51%;and Ash 11.37%(Cont’g sand 0.93%) respectively.”The globulin and albumin in fenugreek have been isolated and analysed.

The globulin (fraction A) is characterised by a surprisingly high content of histidine which is about 4 ½ times the average amount contained in other related globulins obtained from leguminous seeds.In this respect the protein has a close

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50.The Indian materia medica- page no:1241.

relationship with the protamines and histamines which are characterised by a high content of the hexone bases. The albumin (fraction B) appears to contain phosphorous and sulphur in the molecule. In this respect the composition of this fraction approaches the casein of milk.”(Y.V.Sreenivasa Rao, Dept. of Biochemistry, Indian Institute of Science, Bangaluru.).

Cells of the testa contain tannin Cotyledons contain a yellow colouring matter, but no sugar. Seeds contain a foetid, bitter essential fatty oil 6p.c., also resin mucilage 28p.c., albumin 22p.c., two alkaloids-choline and trigonelline. Seeds on incineration leave ash 7p.c.,

Containing phosphoric acid 25p.c. Reutter has noted the presence of several alkaloids in fenugreek, such as methylamine, dimethylamine and trimethylamine, as well as cholin, neurin and betain, which are derived from the splitting up of lecithins. Its chemical composition resembles that of cod-liver oil, owing to its containing substances rich in phosphates, lecithin and nucleo-albumin, it also contains considerable quantities of iron in an organic form which enables it to be readily absorbed. (Bull. Soc. de Thir, April 9<sup>th</sup>, 1924.) Fenugreek contains saponin also.

## **Actions**

Seeds are

- |                |             |             |
|----------------|-------------|-------------|
| • Mucilaginous | Demulcent   | Diuretic    |
| • Tonic        | Carminative | Emmenagogue |
| • Astringent   | Emollient   | Aphrodisiac |

## Gunapadam Aspect

### வெந்தயம்

#### <sup>51</sup> வேறுபெயர்கள்

மெந்தியம்,மேதி,வெந்தை.

#### Habitat

This annual herb is found wild and extensively cultivated in Kashmir,the Punjab,Mumbai and Chennai presidencies.

#### பயன் படும் உறுப்பு

Leave (இலை),

Seed (விதை).

#### ORGANO LEPTIC CHARACTER AND ACTION

|                                 |                    |
|---------------------------------|--------------------|
| Taste (சுவை)                    | -Bitter (கைப்பு)   |
| Potence (தன்மை)                 | -Coldness(தட்பம்)  |
| Bio - Transformation ( பிரிவு ) | -Pungent(கார்ப்பு) |

#### **ACTIONS - SEED**

|                            |                             |
|----------------------------|-----------------------------|
| Diuretic(சிறுநீர்பெருக்கி) | Carminative(அகட்டுவாயகற்றி) |
| Demulcent(உள்ளழலாற்றி)     | Tonic(உரமாக்கி)             |
| Astringent(துவர்ப்பி)      |                             |
| Emollient(வறட்சியகற்றி)    |                             |

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Aphrodisiac(காமம்பெருக்கி)

## பொதுக்குணம்

### விதை

இது பிள்ளை கணக்காய்ச்சல்,சீதக்கழிச்சல்,வெள்ளை,உடல் எரிச்சல்,குருதியழல்,கணம்,எலும்பைப்பற்றின சுரம்,நீர்வேட்கை,

இளைப்புநோய்,கொடிய இருமல் இவைகளை ஒழிக்கும்.ஆண்மை தரும்.

வெந்தயத்தை தோசையாகச் செய்து விருப்பமுடன் புசித்து வந்தால் உடல் வன்மை பெற்றுப் பருக்கும்.உடம்பின் வலி முதலியன நீங்கும்.அதனைக் கருணைக் கிழங்கோடு சேர்த்துச் சாப்பிட்டு வந்தால் உடல் நன்றாகப் பருக்கும். இஃது உண்மையாகும்

### வழக்குமுறை

- இதை வறுத்து பொடி செய்து ஊறல் நீர் செய்து உட்க்கொள்ள வயிற்றுவலி,வயிற்றுபொருமல்,சுரம்,உடல்
- சூடு,வெள்ளை,சீதக்கழிச்சல்முதலியவைகள் போகும்.
- இதை மாவாக்கி களிக் கிண்டிக் கட்ட புண் பூச்சி நோய்களைப் போக்கும்
- இதை வறுத்து இத்துடன் அவ்வளவு வறுத்த கோதுமையைக் கூட்டி காப்பிக்குப் பதிலாக வழங்கலாம். இதனால் உடல் வெப்பம் நீங்கும்.
- <sup>52</sup> Seeds are much used in Colic,Flatulence,Desentery, Diarrhoea,Dyspepsia with loss of appetite,Diarrhoea in puerperal womem,Chronic cough,Dropsy and Enlargement of the liver and spleen.
- Seeds as a condiment or pulse form an ingredient of curry powders,but are sparingly used as an article of food.

## அனுபானம்- பசுவின் பால்

<sup>53</sup> பால்களில் பசுவின் பாலே சிறந்தது. பண்டையர் காலம் முதல் மக்கள் பசுவின் பாலை உணவாகவும் மருந்தாகவும் மருந்துக்கு துணை மருந்தாகவும் பயன்படுத்தி உள்ளனர். பாலும் பால் பொருட்களும் ஐம்பூதத்தின் கூறுகளை கொண்டதாக உள்ளது.

பால்-ஆகாயம்

தயிர் - வளி

நெய் - தீ

மோர் - நீர்

வெண்ணெய் - மண்

- As the casine in the milk mix instantly with blood, the fat and sugar in the milk gives heat and endurance to the body.
- The calcium strengthens the bone and the teeth.
- It increases the WBC count in the blood and maintains the auto immuno mechanism.
- The lactic acid in the milk converts the food into nourishment and makes them to mix in blood.
- The Sodium stimulates the ductless glands.
- The Phosphorous strengthens the brain and nerve cells.



## ஆவின் பால்

பொதுக் குணம்:

"பாலவர் கிழவர் பழஞ் சுரத்தோர் புண்ணாளி"

பசுவின் பாலானது, குழந்தைகளுக்கும் கிழவர்களுக்கும் பழைய  
சுரம், புண், சூலை, பிரமேகம், துர்ப்பலம், மெலிவு(இளைப்பு) ஆகிய  
இவைகள் உடையவர்களுக்கும் ஆகும் என்க.

தேரன் காப்பியத்தில் கீழ்கண்டவாறு பால் வகைகளுக்கு குணம்  
கூறப்பட்டுள்ளது.

"உணவின் பகுதியை யோதுவற்றனமினிப்

----- கயப்பிணி

விடாத் தொடர் காத்தீர வெண்மையை மாற்றுமே"

வெண்மையாகிய ஆவின் பால் களைப்பைப் போக்கும், காராம்  
பசுவின் பால் தாகத்தைத் தணிக்கும்.செம்மை நிறமுள்ள ஆவின் பால்  
மேக ரோகத்தையும் போக்கடிக்கும். காய்ச்சாத பால் பசி தீவனத்தை  
உண்டாக்கும். காய்ச்சிய பால் சரீரத்தில் உள்ள வெப்பத்தை  
தணிக்கும்.

இதனையே தேரையர் யமக வெண் பாலில்

"பாலை குடியானாள் பார்வை யென வட்டற்சிப்

பாலை குடியானாள் பற்று மெயிர்"

பாலை நிலத்தில் வசிக்கின்ற துர்க்கையின் பார்வையைப் போல்  
காய்ச்சிய இராப்பாலை உண்ணாத தினத்தின் சரீரத்தில் வெப்பம்  
உண்டாகும்.

## SIDDHA ASPECT

### இரைப்பு இருமல்

<sup>55</sup>வேறு பெயர்கள்: இழுப்பு நோய்

#### இயல்பு:

இந் நோய் இன்ன வகை எனக் கூறிப்பிடப்படாதப்படி, ஒரு காரணமுமின்றி மார்பை வலித்து இறுக்கியது போன்று வேதனையைத் தந்து மூச்சை வெளி விடவும் முடியாமல் திணறச் செய்யும். அன்றியும், வெளியாகும் மூச்சு மிகுந்த சிரமத்தோடு வெளியாவதுடன், குழல், யாழ், வீணை முதலிய வாத்தியங்களின் ஒலியைப் போய் ஒலிக்கும். மேலும் இருமலாய் மார்பிலுள்ள சளியை வெளியாக்குவதற்கு இயற்கை முயலினும் அக்கோழை வெளியாதல் இல்லை.

#### நோய் வரும் வழி:

இயற்கையாய் அமைந்த உடலுக்கு வேண்டாத உணவு, செயல் முதலியவைகளை, வன்மை குறைந்த நிலையில் ஐயத்தை மிகுதிப்படுத்தக் கூடிய உணவாலும் நடத்தையாலும் புல், பூண்டு, அரிசி, கேழ்வரகு, முதலியவைகளின் சுணையாலும், தனக்கு உதவாத நாற்றப் பொருட்களை முகர்வதாலும் இந்நோய் பிறக்கும்.

### நோயின் முற்குறிகள்:

- பொதுவாக இந்நோயில் பன்னாட்கள் துன்பப்பட்டவர்கள் இந் நோய் வரும் முன் இதன் குறியை அறிவார்கள்.வரவிருக்கும் நோயின் வன்மையும் அறிவிடுவார்கள்.
- அக்குறிகள் தங்களுக்கு ஆகா உணவும், ஆகா காற்றின் மனமும் பட்டவுடன் முக்கில் நீர் பாய்தல், தும்மல் வருதல், மார்பு நோதல், மார்பை இறுக்கிக் கட்டியது போல் உண்டாதல், வேதனை, இயற்கை முச்சு திணறல், வயிறு உப்பல், உடல் வியர்த்தல் முதலியன ஆகும்.

### **நோய் எண்: 5**

குற்ற அளவாக நான்கும் வெளிப்படும் முச்சின் அளவாக ஒன்றும் ஆக 5 ஆகும்.

1. வளி இரைப்பு நோய் (சூத்திர சுவாசம்)
2. ஐய இரைப்பு நோய் (தமரக சுவாசம்)
3. ஐய வளி இரைப்பு நோய் (விச்சின்ன சுவாசம்)
4. முக்குற்ற இரைப்பு நோய் (மகா சுவாசம்)
5. மேல் நோக்கு இரைப்பு நோய்- வெளிப்படும் முச்சின் அளவாய்)

மேற்கூறிய ஐந்து வகை இரைப்பு நோய்களல்லாமல் தமரக நோயிலும், நீருகல் நோயிலும், இரைப்பு நோய் தொடரும்.

மேலும் இந்நோய்த் தனிமைப்படுத்தி கூற வில்லையாயினும் இருமல் நோயின் பகுதியுள் சுவாச காசம் எனவும் பித்தநோயின் பகுதியுள் சுவாச பித்தமெனவும் இரண்டு கூறி அவைகட்குரிய குறிக் குணங்களும் இயம்பப் பட்டுள்ளன.

## குறிகுணங்கள்

### 1. வளி இரைப்பு நோய் - சூத்திர சுவாசம்

எளிதில் செரிக்கக்கூட உணவு கொள்ளுதல், கடும் வெயிலில் திரிதல், கிழங்கு முதலிய பொருட்களை உட்கொள்ளுதல் ஆகியவற்றால் வளிக்குற்றம் தன்னளவில் மிகுந்து உடல் வன்மை குறைந்து மூச்சு விடுவதற்கு வேண்டிய உடல் வன்மை இல்லாது விடும் மூச்சு தன் வலிவு குறைந்து எழும்.நெஞ்சினுள் யாதும் இல்லாதது போன்ற ஓர் உணர்ச்சி தோன்றும்.

### 2. ஐய இரைப்பு நோய் - தமரக சுவாசம்

இஃது ஐயத்தைப் பெருக்கக்கூடிய உணவு வகைகளாலும், மழை குளிர்ந்த காற்று இவைகளினால் உடலில் ஐயம் மிகுந்து தலைக்கேறி மூக்கு உடைப்பு, மூக்கில் நீர்பாய்தல் என்னும் குறிகளை காட்டி, சற்று நேரத்திற்குள் நீங்கி விடும்.

மார்பை அடைப்பது போல் தோன்றி மூச்சு வெளி விட முடியாமல் மிக்க வேதனையைப் பிறப்பித்து வாட்டும். சீவனே வெளியேறி விடுமோ என சிந்திக்கக் கூடிய நிலைக்கு வந்து விடும். இந்நிலையில் சற்று இருமிக் கோழை அகலின் ஒரு வாராக விடுதலை ஏற்படும்.

நெற்றியில் வியர்த்தல்,கைகால் சில்லிடல்,முகங்கருத்தல்,மூச்சு தினறலால் கண்முட்டு வீங்கியது போலத் தோன்றல்நாவறளல்,உடல் நடுங்கல்பெருமூச்சுசெரிதல்,படுக்கையில் பொருந்தாமை போன்ற கொடிய குறிகுணங்களைக் காட்டும்.

### 3.ஐய வளி இரைப்பு நோய் - விச்சின்ன சுவாசம்

இந்நோயில் ஐயமும் வளிக்குற்றமும் ஒன்றுபடகேடமைந்தமையால் கொடுமையான குறிகுணங்களைக் காட்டும். நா வரளல்,கண் சிவந்து வழித்தல்,மர்ம இடங்களில் நோதல் ,மூச்சை சரி வர உள்வாங்க இயலாமல்

விட்டு விட்டு மூச்சொரிதல்,வியர்வை விடுதல்,வாய் பிதற்றல், மயக்கம், உடற்தளற்சி,மனங்கலங்குதல் போன்ற கொடிய குறிகுணங்களைக் காட்டும்.

#### 4.முக்குற்ற இளைப்பு நோய்-மகாசுவாசம்

முக்குற்றங்களும் ஒருங்கே கூடி வரும்,அவற்றின் வழியே மேல் நோக்குங்கால்,கீழ் நோக்குங்கால்,பரவு கால்,நடுக்கால் ஆகிய நான்கும் ஒன்றன் ஒன்றாகக் கேடடைவதன்றி,ஏழு உடற்கட்டுகளும் மெலிவடையும்.இது கொடியதாகும். மூச்சு விட முடியாது திகைத்தல்,உடல் நடுங்குதல்,விடும் மூச்சு பெரிய மாடு விடும் மூச்சைப் போலிருக்கும்,ஐம் புலனும் மங்குதல், நெற்றியில் மிகுதியும் வியர்த்தல் ஆகிய குறிகுணங்களைக் காட்டும்.

#### 5.மேல் நோக்கு இரைப்பு நோய்(வெளிப்படும் மூச்சின் அளவாய்)

முற்கூறிய இரைப்பு நோய்களில் ஏதேனும் மருந்துக்குகட்டுப் படாமல்,நீண்ட நாள் தொடர்ந்து மேல்நோக்குக்கால் வன்மை இழந்து மூச்சை வெளிவிட முடியாத போது பிணியாளன் மூச்சுத்திணறி கண் வெளியே முட்டி வாய் உலர்ந்து பேசமுடியாது திகைத்து படுக்கை நிலையில் எழுந்து வாய் திறந்தது போல் மேல் நோக்கி சற்றுக்காற்றை வெளியாக்கி மூச்சை உள்ளிழுக்க முயலுவான்.அச்சமயத்தில் தக்க மருத்துவம் செய்யவிடில் மரணமடைவான்.

#### நாடி நடை

“தானான சேத்துமந்தானிளகிய

- - - - -சுவாசம் - - - -

பாங்கான வாதத்தில் சேத்துமநாடி

பரிசித்தால்-- - - - -

--- - - - - சுவாசகாசம்.”

#### எச்சில்(கோழை)

- இது நுரைத்து அளவில் மிகுந்து பளுவற்றதாக காணின் வளிக்குற்றத்தால் வந்ததாகும்.

- கருத்துக்கடினப்பட்டு,புலால் மணத்துடன் காணின்  
கபக்குற்றத்தால் வந்ததென குறிக்கும்.
- வெளுத்துச் சீழ் கலந்து மஞ்சள் நிறத்துடன் காணின் அழல்  
குற்றத்தால் வந்ததாகும்.

### மருத்துவம்

நோயில் தன்னிலை மிகுந்த ஐய முதலான குற்றங்களைத் தன்னிலைப் படுத்துவதற்க்கும் மிகுதிப்பட்ட மேல்நோக்குக்காலின் வன்மையைக் குறைப்பதற்கு பேதிமருந்துகளைக் கொடுத்தல் வேண்டும்.பிறகு நோய்க்குத்தக்க மருந்துகளையும் உணவு வகைகளையும் வழங்குதல் வேண்டும்.

### உணவு

இந்நோயினர் தனக்கொவ்வாதப் பொருட்களை அறிந்து அதனை தவிர்த்து எளிதில் செரிக்கக்கூடியதான பொருட்களை கொள்ளுதலும்,உடலில் ஐயத்தைப் பெருக்கக்கூடிய உணவுகளைத் தள்ளுதலும் வேண்டும்.

## **OBSTRUCTIVE POLMONARY DISEASE**

### **BRONCHIAL ASTHMA**

<sup>55</sup>There is no universally agreed definition of asthma. Clinical, physiologic and pathological characteristics stress the role of both chronic airway inflammation and increased airway hyper-responsiveness. Symptoms are wheeze, cough, chest tightness and dyspnoea accompanied by airflow obstruction.

#### **Epidemiology:**

The prevalence of asthma increased over the latter part of last century. Asthma affects 300 million people and will be diagnosed by 2025. Socio-economic impact is enormous. Poor control leads to days lost from school or work.

#### **Pathophysiology:-**

AHR- Airway Hyper Reactivity. It is the tendency for airways to contract and respond to triggers that have no effect in normal individuals. The factors likely to be important are degree of airway narrowing and influence of neurogenic mechanisms. Inhalation of allergen like house dust mites, pets, cockroaches and fungi into the airway is followed by two phase broncho constrictor response.

In exercise induced asthma, hyperventilation results in water loss from pericellular lining fluid which in turn triggers mediator release. Heat release from the respiratory mucosa may also be important.

In persistent asthma, a chronic and complex inflammatory response comes next, which is characterized by infiltration of numerous inflammatory cells, the transformation and participation of airway structural cells and the release of an array of cytokines, chemokines and growth factors.

Examination inflammatory cell profile (outline) in induced sputum samples demonstration that although asthma is characterized by airway eosinophilia, in some patients neutrophilic inflammation predominates and in others, eosinophilic inflammation is observed.; so called eosinophilic- granulocytic, asthma.

### **Clinical features:**

Typical symptoms are recurrent episodes of wheeze; chest tightness, cough and breathlessness. Commonly asthma is mistaken for cold or chest infection that is failing to more clear.

Classical precipitants include, exercise in cold weather, exposure to airborne. Allergens or pollutants and viral upper respiratory tract infections. An inspection for nasal polyps and eczema should be performed. Rarely, vasculitic rash may be present in Churg-Strauss syndrome.

Enquiry should be made about potential allergens like pet cat, guinea pig, rabbit or horse, attack of troublesome creatures, fungus growth due to water drainage to a house or building.

In some cases the appearance asthma is induced by medications. For example adrenoceptor antagonists ( $\beta$  blockers) when given typically as eye drops, may induce bronchospasm, and aspirin and other non-steroidal anti-inflammatory



drugs may also induce wheeze. Aspirin sensitive patient may also report symptoms following alcohol and foods containing salicylates. Other medications involved include the oral contraceptive pill, cholinergic agents and prostaglandin F<sub>2</sub>  $\alpha$  betel nuts contain acetylcholine; which is structurally similar to methacholine and make the asthma worse. Careful enquiry should be made to sinusitis, sinus headache, a blocked or runny nose, and loss of sense of smell. Severe form of asthma is more common in women. Allergic triggers are less important and airway hyperresponsiveness predominates.

### **Diagnosis:**

Spirometry is used to give the evidence of variable airflow obstruction. The measurement of FEV<sub>1</sub>, and VC identify the obstructive nature of the ventilatory defect, define its severity and provide the basis of bronchodilator reversibility. A peakflow meter may be used instead of spirometry.

### **Other useful investigations**

#### **Measurement of allergic status:**

The measurement of atopy is demonstrated by skin prick tests. The measurement of total and allergen-specific provides the similar information. A full blood picture shows peripheral blood eosinophilia.

Radiological examination: chest x-ray shows hyperinflation of lung fields.

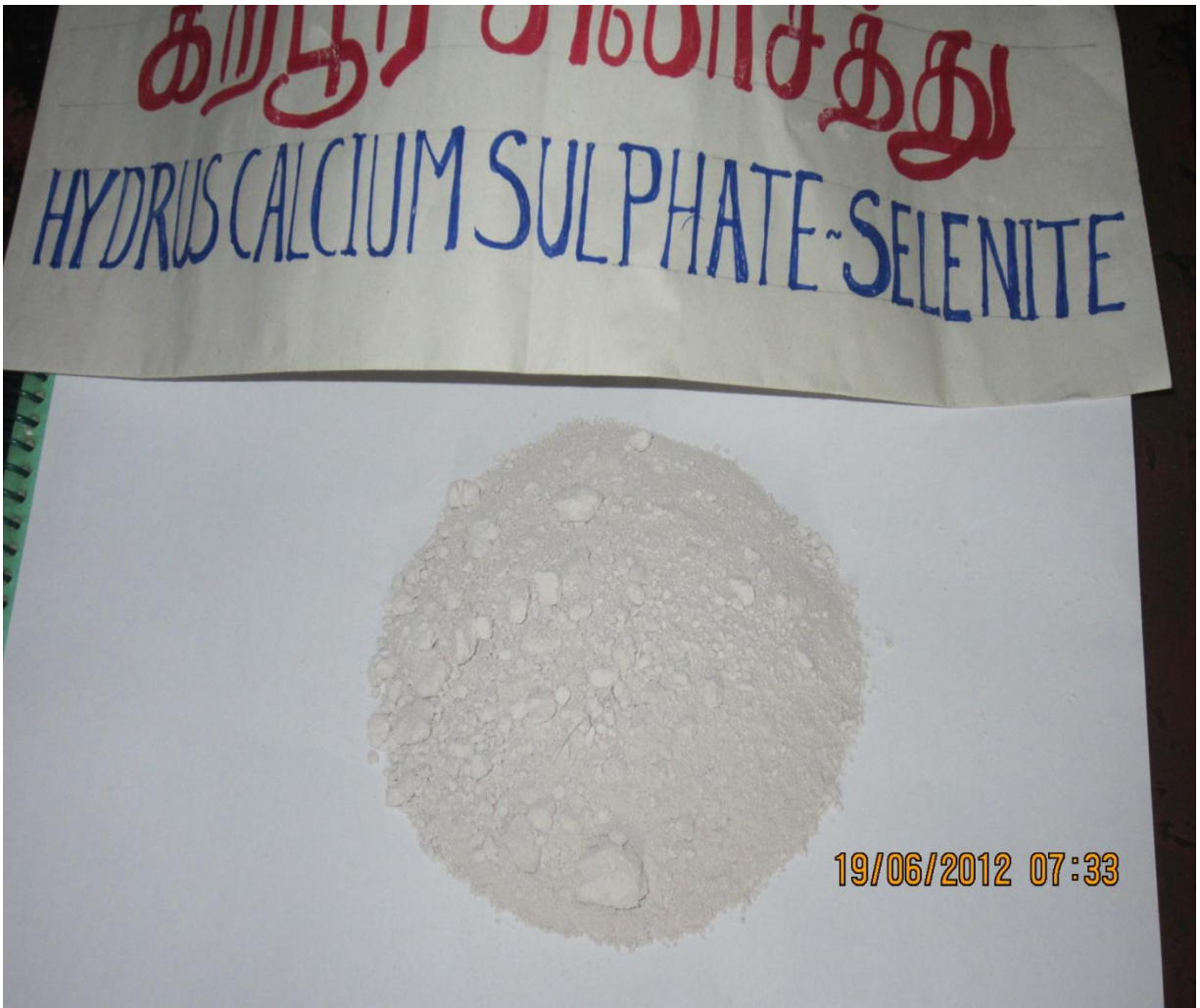
## **KARPOORA SILAJITHU RAW DRUG**



## **KARPOORA SILAJITHU PURIFIED**



## **KARPOORA SILAJITHU PARPAM**



## MATERIALS AND METHODS

**Karpooora silajithu parpam** was taken as a single drug for treating Eraippu Erumal in this dissertation according to the siddha text

<sup>56</sup> **Kaikanda Anuboga Vaithiya Perunkural .**

### **Collection of Karpooora silasathu**

Karpooora silasathu was purchased from a raw drug dealer in Tirunelveli and was properly identified by the Gunapadam department staff.

### **Purification of Karpooora silasathu**

The drug **Karpooora Silajith** has to be covered with limestone paste and allowed to dry under sun shade. Then remove the dried limestone paste.

### **Process and preparation of Karpooora silasathu parpam**

The fenugreek is soaked in water and is made into a paste by grinding. The purified karpooora silajith has to be covered by the fenugreek paste and is dried in the sunlight. Then it is burnt (pudam) in 10 cow dung cakes. Covering is removed and place it in a kalvam and grind well. Finally collect the fine powder and preserve it in an air tight container.

---

56. Kaikanda Anuboga Vaithiya Perunkural.-by Mr. Dhevanatha pavanar – Page No. 19 & 79.

**Route of administration:**

Oral route

**Dose:**

100mg, twice a day for 12 to 45days.

**Anupanam(vehicle):**

Luke warm cow milk.

The prepared **Karpoorā silajithu parpam** used for the treatment of Eraippu

Erumal was analysed by the following methods.

1. Biochemical analysis
2. Pharmacological analysis
3. Microbiological analysis
4. Clinical assessment.



SHANMUGHA ARTS, SCIENCE, TECHNOLOGY & RESEARCH ACADEMY (SASTRA)

(A University established under Section 3 of the UGC Act, 1956)

SASTRA University Tirumalaisamudram, Thanjavur-613401.

Centre for Advanced Research in Indian System of Medicine (CARISM)



GOVT. APPROVED DRUG TESTING LABORATORY APPROVAL No. R.DIS.NO.:282/2010

### CERTIFICATE OF ANALYSIS

Name of the Product: 096-Karpooora Silajithu Parpam

Report No : CAR/DTL/PAR072

Date of Sampling : 09.10.12

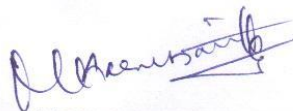
Report Date: 18.12.12

Manufacturer : Dr.G.Kanmani, G.S.M.C, Palayamkottai

### PHYSICO-CHEMICAL STANDARDISATION

| S.No | TESTS                   | AS PER ANALYSIS     |
|------|-------------------------|---------------------|
| 1.   | Description             | Ash coloured powder |
| 2.   | Loss on Drying at 105°C | 0.39%               |
| 3.   | Total Ash               | 99.22%              |
| 4.   | Acid Insoluble Ash      | 23.04%              |

  
ANALYST

  
LAB IN-CHARGE

  
ASSOCIATE DEAN & CO-ORDINATOR

## BIO – CHEMICAL ANALYSIS OF KARPOORA SILAJITHU PARPAM

### Preparation of the Extract:

100mg of the drug was weighed accurately and placed in to a clean beaker and added a few drops of concentrated Hydro chloric acid and evaporated it well. After evaporation cooled the content and added a few drops of concentrated Nitric acid and evaporated it well. After cooling the content add 20ml of distilled water and dissolved well. Then it is transferred to 100ml volumetric flask and made up to 100ml with distilled water mix well and filter it. Then it is taken for analysis.

**Table:1 Study of bio–chemical Qualitative Analysis**

| Sl.No. | Experiment  | Observation                   | Inference                          |
|--------|---|-------------------------------|------------------------------------|
| 1      | <b><u>TEST FOR CALCIUM:</u></b><br>2ml of the above prepared extract is taken in a clean test tube. 2ml of 4% Ammonium oxalate solution is added. | A white precipitate is formed | Indicates the presence of Calcium  |
| 2      | <b><u>TEST FOR SULPHATE:</u></b><br>2ml of the extract is added to 5% Barium chloride solution.   | A white precipitate is formed | Indicates the presence of Sulphate |
| 3      | <b><u>TEST FOR CHLORIDE:</u></b><br>The extract is treated with silver nitrate solution.  | A white precipitate is formed | Indicates the presence of Chloride |



|     |   |                                     |   |
|-----|---|-------------------------------------|---|
| 4   | <b><u>TEST FOR CARBONATE:</u></b><br>The substance is treated with concentrated HCL.  | No brisk effervescence is formed    | Absence of Carbonate                          |
| 5   | <b><u>TEST FOR STARCH:</u></b><br>The extract is added with weak iodine solution.   | No blue colour is formed            | Absence of Starch                             |
| 6   | <b><u>TEST FOR IRON FERRIC:</u></b><br>The extract is treated with Glacial acetic acid and potassium ferro cyanide.             | No blue colour is formed            | Absence of Ferric iron.                       |
| 7   | <b><u>TEST OF IRON FERROUS:</u></b><br>The extract is treated with concentrated nitric acid and ammonium thio-cyanate solution. | Blood red colour is formed          | Indicates the <b>presence of Ferrous Iron</b> |
| 8   | <b><u>TEST FOR PHOSPHATE:</u></b><br>The extract is treated with Ammonium Molybdate and concentrated nitric acid.               | No yellow precipitate is formed     | Absence of Phosphate                          |
| 9   | <b><u>TEST FOR ALBUMIN:</u></b><br>The extract is treated with Esbach's reagent.  | No yellow precipitate is formed     | Absence of Albumin.                           |
| 10. | <b><u>TEST FOR TANNIC ACID:</u></b><br>The extract is treated with ferric chloride.   | No blue black precipitate is formed | Absence of Tannic acid                        |

|    |   |                                |                                 |
|----|---|--------------------------------|---------------------------------|
| 11 | <b><u>TEST FOR UNSATURATION:</u></b><br>Potassium permanganate solution is added to the extract.  | It dose not get decolourised   | Absence of Unsaturated compound |
| 12 | <b><u>TEST FOR THE REDUCING SUGAR:</u></b><br>5ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 mts and added 8-10 drops of the extract and again boil it for 2 mts. | No colour change occurs        | Absence of Reducing sugar       |
| 13 | <b><u>TEST FOR AMINO ACIDS:</u></b><br>One (or) two drops of the extract is placed on a filter paper and dried it well. After drying, 1% Ninhydrin is sprayed over the same and dried well.                 | No violet colour is formed     | Absence of Amino acid.          |
| 14 | <b><u>TEST FOR ZINC:</u></b><br>The extract is treated with potassium Ferro cyanide.  | No white precipitate is formed | Absence of zinc                 |

### **Inference**

The given sample of **KARPOORA SILAJITHU PARPAM** indicates the presence of **Calcium, Sulphate, Chloride, And Ferrous Iron.**

## BEFORE TREATMENT

### X - RAY KNEE JOINT



**AFTER TREATMENT**

**X - RAY KNEE JOINT**



## **PHARMACOLOGICAL ANALYSIS ANTI- SPASMODIC EFFECT OF KARPOORA SILAJITHU PARPAM ON ISOLATED RABBIT ILEUM**

### **Aim:**

To find out the Anti-spasmodic effect of **Karpooora silajithu parpam** on isolated Rabbit jejunum, Burn\_1952.

### **Preparation of the test drug:**

100mg of **Karpooora silajithu parpam** was dissolved in 10ml of water. Then it was used for the experiment.

### **Solutions Required:**

- Acetyl choline – 10 µg/ml
- Test Drug (**Karpooora silajithu parpam** ) 100mg/ml

### **Nutrient Solution:**

- Tyrode solution - 1 to 2 litres.

Nacl – 8 gms

Kcl – 0.2 gms

Cacl<sub>2</sub> - 0.2 gms

Mgso<sub>4</sub> – 0.26 gms

NaH<sub>2</sub>PO<sub>4</sub> – 0.05 gms

NAHCO<sub>3</sub> - 1 gms

Glucose - 1 gms

**Tissue used:**

- Rabbit jejunum .

**Apparatus Required:**

- Student's Organ bath, Sherrington rotating drum, Scissors, Cotton thread etc.

**Procedure:**

A rabbit was starved for 48 hours and was allowed only water Ad – jejunum . It was sacrificed by a blow on the head and by carotid bleeding. The abdomen was quickly opened and the ileocaecal junction was found out. A small piece of ileal portion was cut, removed and placed in a dish, containing warm aerated Tyrode solution. The content of lumen of the jejunum was gently rinsed out by pushing the tyrode solution into it. 3cm length segment was cut from this part of jejunum and was tied with thread on both ends separately without closing the lumen and the tissue was mounted in an organ bath, containing Tyrode solution maintained at 37<sup>0</sup>c, bubbled with air by an oxygen tube.

First the drum was allowed to run for 1 minute to record the baseline. Drugs were given to study the inhibiting effect of Acetyl choline; 0.2 ml of Acetyl choline was added and allowed to run the drum for 30 seconds. Thus the tissue was standardized and then the drum was stopped and the Acetyl choline was washed out.

Again Tyrode solution was added to the organ bath till the level comes to the baseline. The drum was allowed to run for 1 minute. To the organ-bath, 1ml of test drug was added, waited for one minute and 0.2ml of Acetyl choline was added and the drum was allowed to run for 30 seconds to record the inhibitory action of the test drug. There is no elevation in the graph and it seems to be the base line. Then 0.2ml of Acetyl choline was added to standardize the tissue. Then the tracing was labelled and fixed.

**Inference:**

From the graph it is inferred that the test drug antagonize the effect of Acetyl choline when added together. So the drug **Karpooora silajithu parpam** has got **significant Anti spasmodic activity**.

**ANTI -HISTAMINE STUDY OF  
KARPOORA SILAJITHU PARPAM ON ISOLATED  
GUINEA PIG ILEUM**

**Aim:**

To study the Anti Histamine effect of **Karpooora silajithu parpam** on isolated Guinea Pig ileum, Burn – 1952.

**Preparation of the test drug:**

100mg of **Karpooora silajithu parpam** was dissolved in 10ml of water. Then it was used for the experiment.

**Solutions Required:**

|                |   |  |
|----------------|---|--|
| Histamine      | : | 1 in 100000 strength.                              |
| Anti histamine | : | (Pheniramine Maleate) 2.5mg/ml.                    |
| Test drug      | : | ( <b>Karpooora silajithu parpam</b> )<br>100mg/ml. |

**Nutrient Solution:**

Tyrode Solution 1-2 litres.

Nacl – 8 gms

Kcl – 0.2 gms

Cacl<sub>2</sub> - 0.2 gms

Mgso<sub>4</sub> – 0.26 gms



$\text{NaH}_2\text{PO}_4$  – 0.05 gms

$\text{NaHCO}_3$  - 1 gms

Glucose - 1 gms

**Tissue used:**

Guinea pig ileum.

**Apparatus Required:**

Student organ bath, Sherrington rotating drum, scissors, cotton thread etc.

**Procedure:**

An overnight fasted Guinea pig weighing about 400 grams was sacrificed by a blow on the head and by carotid bleeding. The abdomen was suddenly opened and ileo-caecal junction was found out. A small piece of ileal portion was cut and removed and placed in a dish containing warm aerated tyrode solution. The contents of lumen of ileum was gently rinsed by pushing tyrode solution into it. 3cm length segment was cut from this part of ileum, and was tied with thread on both ends separately without closing the lumen and the tissue was mounted in an organ bath containing Tyrode solution maintained at 37°C and bubbled with air by oxygen tube.

First the drum was allowed to run for 1 minute to record the baseline. Drugs were given to study the inhibiting effect of histamine, 0.2ml of Histamine was added and allowed to run the drum for 30 seconds. Thus the tissue was

standardized and then the drum was stopped and the histamine was stopped out. Again Tyrode solution was added to the organ bath till the level comes to baseline. The drum was allowed to run for 1 minute.

To the organ bath, 1ml of test drug was added, waited for 1 minute and 0-2ml of histamine was added and the drum was allowed to run for 30 seconds, to record the inhibitory action of the test drug.

Again the recording were repeated by adding 0.2ml of Antihistamine and 0.2ml histamine and the drum was allowed to run for 30 seconds to record the antagonistic action of Antihistamine.

There was an elevation in the graph from the baseline. Then 0.2ml of Histamine was added to standardize the tissue. Then the base line was labeled and fixed.

### **Inference:**

From the graph it is inferred that the test drug antagonize the effect of Histamine when added together. So the drug **Karpooora silajithu parpam** has got **Significant Anti-Histamine activity**.

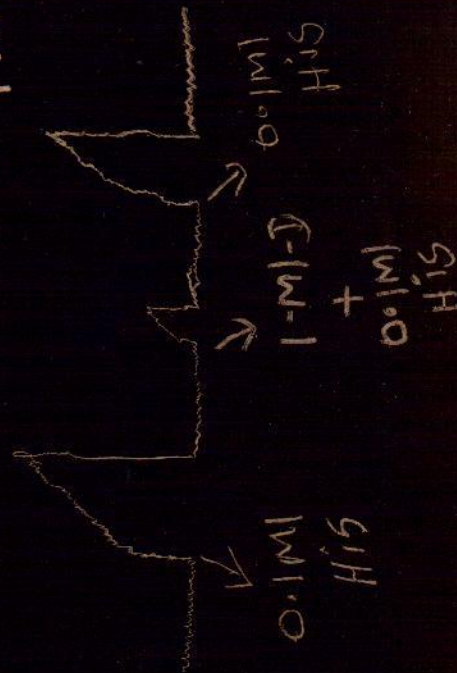
## **Staphylococcus aureus**



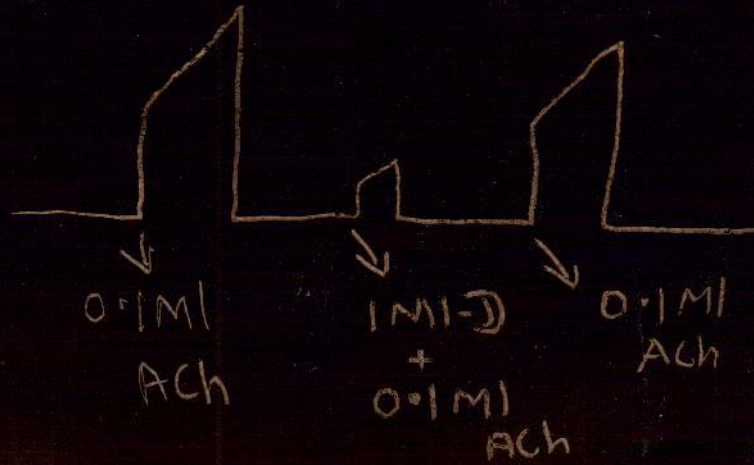
## **Streptococcus pneumoniae**



Anti Histamine - Action  
 Drug - KARPOORA SILASITHU  
 PARPAM



Anti Spasmodic Action  
DRUG - KARPOORASILASITHU  
PARPAM



## **ANTI – MICROBIAL ACTIVITY**

### **BY KIRBY BAUER METHOD**

#### **AIM**

To determine the Antimicrobial activity of “**Karpooora silajithu parpam.**”

#### **COMPONENTS OF MULLER HINTAN AGAR MEDIUM**

|                    |   |               |
|--------------------|---|---------------|
| Beef Extract       | : | 300 gms /lit  |
| Agar               | : | 17 gms /lit   |
| Starch             | : | 1.5 gms / lit |
| Casein Hydroxylate | : | 17.5 gms/lit  |
| Distilled water    | : | 1000 ml.      |
| PH                 | : | 7.6.          |

#### **PROCEDURE**

The method of antimicrobial activity study is **UPS Diffusion Method**. Antibiotic discs are prepared with known concentration of antibiotic are placed on agar plates that has been inoculated with the known pathogenic micro organism. The antibiotic diffuses through the agar producing an antibiotic concentration, gradient Antimicrobial susceptibility is proportional to the diameter of the inhibitory zone around the disc. If the micro organism which grows upto the edge of the disc are resistant to the antimicrobial agent. The recommended medium in this method is Muller Hinton Agar, its PH should be between 7.2 – 7.6 and should be poured to uniform thickness of 4mm in the petri plate (25ml).

## Methodology:

Muller Hinton Agar plates are prepared and Pseudomonas, Staphylococcus, Candida, Escherichia coli, Streptococcus is inoculated separately.

- ❖ The prepared discs of **Karpooora silajithu parpam** are placed over the incubated plate using sterile forceps and incubated for 24 hours at 37 degree celcius. The plates after 24 hours incubation are observed for the zone of inhibition.

## ❖ Result      Table :2 Study of Anti – microbial activity

| S.No | Test Drug                                 | Organisms<br>(Culture)      | Susceptibility | Standard<br>drug<br>Zone size<br>(mm) | Test<br>drug<br>Zone size<br>(mm) |
|------|---|-----------------------------|----------------|---------------------------------------|-----------------------------------|
| 1.   | <b>Karpooora<br/>silajithu<br/>parpam</b> | Staphylococcus<br>aureus    | Moderate       | 14                                    | 21                                |
| 2.   |   | Streptococcus<br>pneumoniae | Sensitive      | 25                                    | 28                                |
| 3.   |   | Pseudomonas<br>aeruginosa   | Resistant      | -                                     | -                                 |

## **REPORT**

The drug **Karpورا silajithu parpam** is sensitive to **Streptococcus pneumonia**,  
**Moderate to Staphylococcus aureus** organism.



## **ACUTE TOXICITY STUDY FOR KARPOORA SILAJITHU PARPAM**

### **Animals used for the study:**

Wister albino rats breed in the animal house attached to the Post Graduate Pharmacology Department Govt. Siddha Medical College, Palayamkottai were used.

### **Sex:**

Animals of both sex were used.

### **Weight:**

Animals weighing 100-120gms were selected.

### **Food and water:**

The animals were maintained with standard laboratory pellet food and water ad-Libitum.

### **Preparation of Animals:**

The animals were randomly selected and were marked with picric acid on for and kept in their cages for five days prior to dosing, to allow acclimatization to the laboratory conditions.

**Separation of Animals in Groups:**

10 rats were divided into 5 groups each consisting of 2 rats, 1<sup>st</sup> group is kept as control group by giving water alone.

**Dose Levels:**

The following dose levels were arbitrarily fixed by presuming range of least toxic to high toxic doses.

|           |   |                               |
|-----------|---|-------------------------------|
| I Group   | - | 40mg/kg body weight of animal |
| II Group  | - | 80mg/kg                       |
| III Group | - | 160mg/kg                      |
| IV Group  | - | 320mg/kg                      |
| V Group   | - | 1600 mg/kg                    |

**Route of Administration:**

The drug was administered orally.

**Test Dose Preparation:**

The Preparation was done in such a way 1ml of the suspension contained 100mg of test drug and administered as given above in each group the drug was administered once on the day of the experiment and other 24 hour parameters were used.

**Experimental set up:**

All the five groups were fasted for over night prior to dosing. Following the period of fasting the animals were weighed and test substance was administered through “Rat oral intubation tube”.

After the administration of the test drug, food was withheld for 1 to 2hrs.

**Observation:**

The following parameters were noted.

**Central effects:****I. Stimulation**

- ❖ Hyper activity
- ❖ Piloerection
- ❖ Twitching
- ❖ Rigidity
- ❖ Irritability
- ❖ Jumping
- ❖ Colonic convulsion
- ❖ Tonic convulsion

## **II. Depression**

- ❖ PtoisSedation
- ❖ Sleep
- ❖ Loss of traction
- ❖ Loss of Pinna reflex
- ❖ Ataxia
- ❖ Catatonia
- ❖ Loss of muscle tone
- ❖ Analgesia

### **Autonomic Effect:**

- ❖ Straub's tail flicking
- ❖ Labouredly respiration
- ❖ Cyanosis
- ❖ Blanching
- ❖ Reddening
- ❖ Abnormal secretions

At the end of 24 hrs, the number of animals dead in each group was noted and the approximate LD<sub>50</sub> was determined. The animals were morphologically examined for any toxic symptoms.

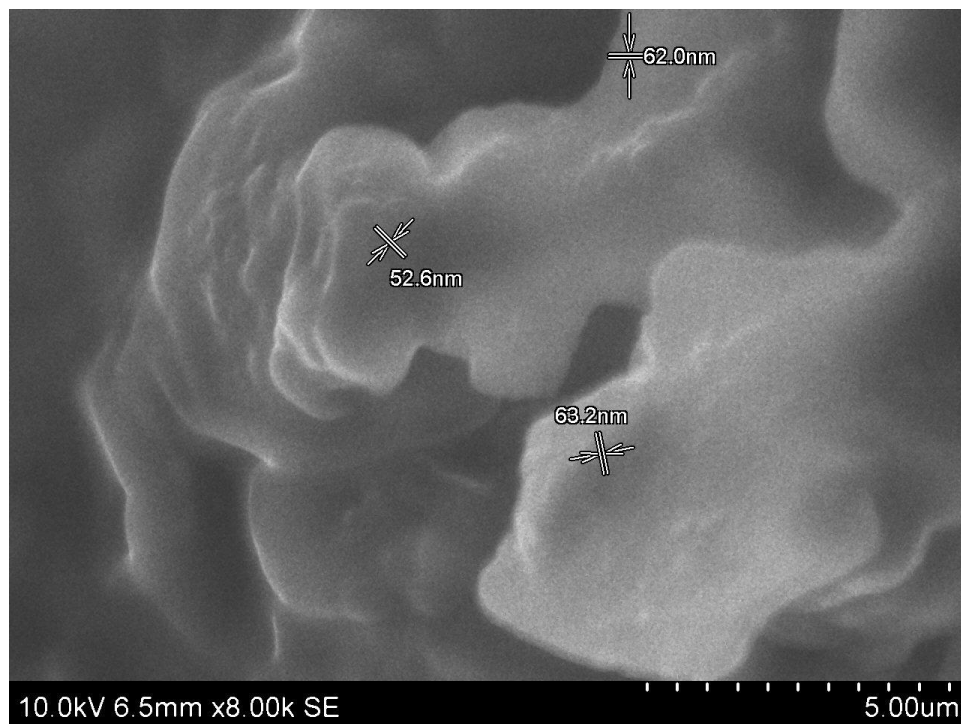
**Result:**

During the acute toxicity study none of the albino rat was found dead. During morphological examination of the rats no toxic symptoms were found. This proves the safety of the test drug.

## SCANNING ELECTRON MICROSCOPE (SEM)



A **scanning electron microscope (SEM)** is a type of [electron microscope](#) that produces images of a sample by scanning it with a focused beam of [electrons](#). The electrons interact with electrons in the sample, producing various signals that can be detected and that contain information about the sample's surface [topography](#) and composition. The electron beam is generally scanned in a [raster scan](#) pattern, and the beam's position is combined with the detected signal to produce an image. SEM can achieve resolution better than 1 nanometer. Specimens can be observed in high vacuum, low vacuum and in environmental SEM specimens can be observed in wet condition.



## SEM ANALYSIS

Graphs shows the average size of the particle in Karpooora silajithu parpam is 59.2nm.

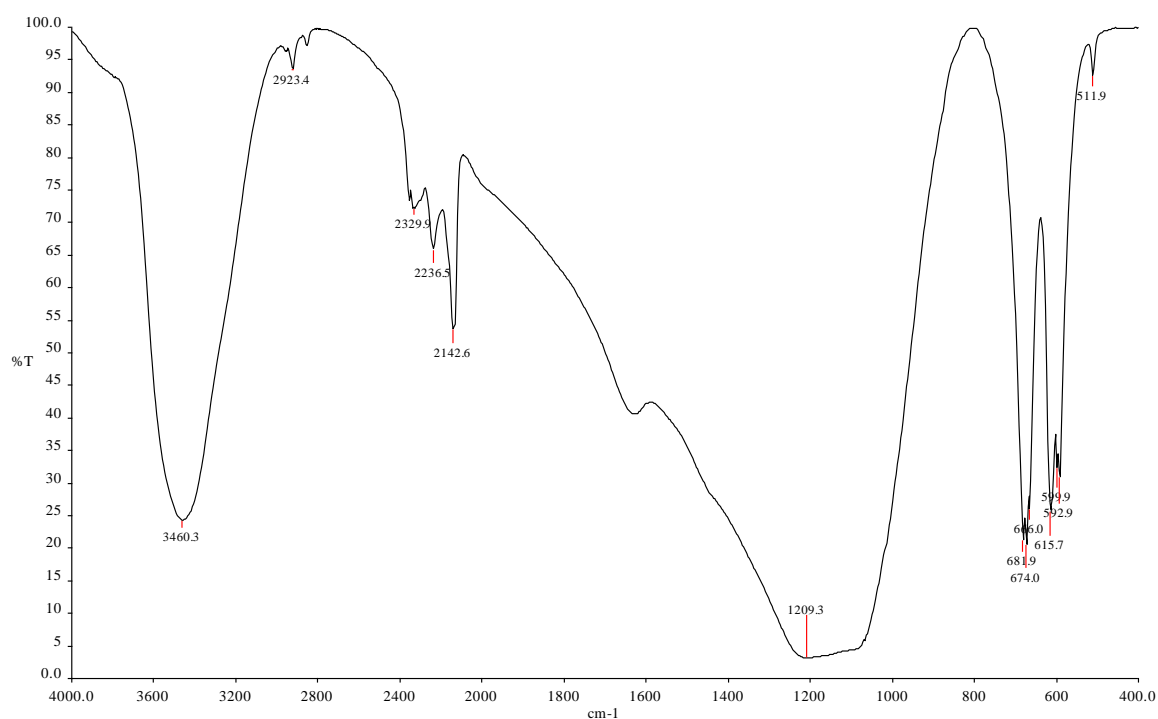


## Fourier transform infrared spectroscopy (FTIR)

Fourier transform infrared spectroscopy is a technique. It is used to find an [infrared spectrum](#) of [absorption](#), [emission](#), [photoconductivity](#) or [Ramanscattering](#) of a [solid](#), [liquid](#) or [gas](#). An FTIR spectrometer simultaneously collects spectral data in a wide spectral range. This confers a significant advantage over a [dispersive](#) spectrometer which measures intensity over a narrow range of wavelengths at a time. FTIR has made dispersive infrared spectrometers all but obsolete (except sometimes in the near infrared), opening up new applications of [infrared spectroscopy](#).

The term Fourier transform infrared spectroscopy originates from the fact that a [Fourier transform](#) (a mathematical process) is required to convert the raw data into the actual spectrum. For other uses of this kind of technique, see [Fourier transform spectroscopy](#).





## Fourier transform infrared spectroscopy (FTIR) analysis for

**Karpoor Silajithu Parpam 30.10.12.pk**

~4.SP 3601 4000.0 400.0 3.1 100.0 4.0 %T 4 2.0

PT

REF 4000 99.3 2000 75.7 600

3460.3 24.2 2923.4 93.5 2329.9 72.1 2236.5 65.9 2142.6 53.6

1209.3 3.1 681.9 21.3 674.0 20.6 666.0 26.0 615.7 25.7

599.9 32.3 592.9 31.0 511.9 92.5

END 13 PEAK(S) FOUND

## INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPECTROSCOPY (ICP-AES)



**Inductively coupled plasma atomic emission spectroscopy (ICP-AES)**, also referred to as inductively coupled plasma optical emission spectrometry (ICP-OES), is an analytical technique used for the detection of trace metals. It is a type of [emission spectroscopy](#) that uses the inductively to produce excited atoms and ions that emit [electromagnetic radiation](#) at wavelengths characteristic of a particular [element](#).<sup>[1][2]</sup> The intensity of this emission is indicative of the concentration of the element within the sample.

**SOPHISTICATED ANALYTICAL INSTRUMENT FACILITY**

**IITM,CHENNAI-36**

**PERKIN ELMER OPTIMA 5300DV ICP-OES**

| <b>SampleID</b>                 | <b>Analyte</b> | <b>Mean</b>  |
|---------------------------------|----------------|--------------|
| <b>Karpoor Silajithu Parpam</b> | -----          |              |
|                                 | As193.696      | BDL          |
|                                 | B 249.773      | 12.141mg/L   |
|                                 | Cd 226.502     | BDL          |
|                                 | Cu 324.754     | 02.184 mg/L  |
|                                 | Co 228.616     | 03.144 mg/L  |
|                                 | Fe 238.204     | 12.484 mg/L  |
|                                 | Hg253.652      | BDL          |
|                                 | Ni 58.693      | BDL          |
|                                 | Pb 230.204     | BDL          |
|                                 | Sb 206.833     | 12.184 mg/L  |
|                                 | Se 196.090     | 196.090 mg/L |
|                                 | Si 251.611     | 26.148 mg/L  |
|                                 | 213.856        | 28.464 mg/L  |

BDL=Below detection limit

## CLINICAL ASSESSMENT

A clinical trial to test the efficacy of **Karpooora silajithu parpam** on **Eraippu Erumal** was done on 41 cases of different age and of both sexes. They were clinically diagnosed as Eraippu Erumal, according to the inclusion and exclusion criterias. Among them 31 patients were treated in the Out Patient department and 10 patients were treated in the In Patient department of Government Siddha Medical College Hospital, Palayamkottai.

Patients were thoroughly examined and all clinical features including complete history, hygienic conditions, surroundings, occupation were noted. Personal habits, previous illness, dietary details and allergy to specific things if any were also recorded.

The patients had different range of signs and symptoms like difficulty in breathing, cough with or without expectoration, tightness of chest, wheezing, sneezing. The duration of illness was also variable.

The routine blood and urine investigations were done in each case, Mantoux, sputum for AFB and radiological investigation were carried out to rule out other causes and diseases.

During the course of the clinical study any other ailments which occurred, were treated accordingly with conventional Siddha medicines.

The cases were screened as per following criteria.

### **Including Criteria in the case of Eraippu Erumal:**

- Cough – with or without expectoration.
- Difficulty in breathing.
- Tightness of chest.
- Sputum without gross abnormalities such as blood stained, abnormally large quantities.
- History of allergy.
- Sneezing.
- Allergic rhinitis.
- Abnormalities in the Differential count, especially Eosinophilia.
- Respiratory system examination – added sounds- Rhonchi.
- Radiological investigation - Normal study, Bronchitis, Allergic bronchitis.

### **Excluding Criteria in the case of Eraippu Erumal:**

- Facial puffiness.
- Abdominal distension.
- Pedal edema.
- Hepatomegaly.
- Haemoptysis.
- Haematemesis.
- Orthopnoea.
- Cyanosis.
- Evening rise of temperature.
- Sputum for AFB – Positive.
- Mantoux positive.

- Clubbing.
- Albuminuria.
- Increased blood urea and serum creatinine.
- Status asthmaticus.
- High fever.

### **Drug and Dose:**

The drug **Karpooora silajithu parpam** was administered internally in a dose of 100mg two times a day with Luke warm cow milk. taken after food to each patient. The duration of treatment varied from patient to patient from a minimum of 12 days to a maximum of 45 days.

### **Diet and Medical Advice:**

- Advised intake of hot water and hot foods.
- Advised to avoid chill water and weather, advised to avoid allergic factors such as dust and cold air.
- Advised to avoid smoking and snuff.
- Advised to avoid factors which cause digestive disturbances.
- Advised to take bath strictly in hot water.
- Advised to avoid stress.
- Advised to take dinner before 8pm.
- Advised to practice Pranayamam and Yogasanam properly.

Asanas (Postures), Kriya (cleansing technique) and Pranayama (breathing techniques) that strengthen, stretch and relax the body physically and rebalance internal systems at a deeper level. Asanas that focus on increasing capacity of the

lungs and relaxing the chest muscles which contract and remain tense during and after asthma attacks.

### **Recommended Kriyas**

- Nauli
- Jalaneti
- Catheter neti
- Vamanadhouthi

### **Asanas**

- Ardhakatichakrasana
- Bhujangasana
- Mayurasana
- Ustrasana
- Ardhashakrasana

### **Pranayamas**

- Kapalabhati
- Naadisudhi
- Bhramari

## BIO – STATISTICAL ANALYSIS

### Analysis of data:

The Eraippu Erumal clinical trials in respect of the drug **Karpoorā silajithu parpam** are described according to their demographic characters such as sex and age in terms of percentages and averages. The effectiveness of the drug in controlling the Eraippu Erumal is analysed and interpreted by the student's paired 't' test. The above statistical procedures are pre termed by the statistical package S.P.S.S. (13.0). The p- values <0.05 are considered as significant.

### Results and Observations:

**Description of the clinical trials of Karpoorā silajithu parpam** was described according to their sex and age as follows.

| Age group (years) | Male |        | Female |                   | Total |        |
|-------------------|------|--------|--------|-------------------|-------|--------|
|                   | Male | Female | Total  | Age group (years) | Male  | Female |
| 30 – 39           | 5    | 25     | 4      | 19.04             | 9     | 21.96  |
| 40 -49            | 2    | 10     | 5      | 23.83             | 7     | 17.04  |
| 50 -59            | 4    | 20     | 9      | 42.84             | 13    | 31.72  |
| 60 – 69           | 8    | 40     | 2      | 9.53              | 10    | 24.40  |
| Total             | 20   | 100    | 21     | 100               | 41    | 100    |

The age and sex wise distribution was shown in the above table. The male participation was 48.78% and the female participation was 51.22%



### Comparison of Male and Female according to their age distribution

| Sex    | Age (years) |                    | Difference of means | 't'  | d.f | Significance |
|--------|-------------|--------------------|---------------------|------|-----|--------------|
|        | Mean        | Standard Deviation |                     |      |     |              |
| Male   | 49.30       | 9.38               | 7.20                | 2.15 | 19  | P < 0.001    |
| Female | 42.62       | 11.33              |                     |      |     |              |

This table reveals the difference of age between the male and female clinical trials. The mean age of the males was  $49.30 \pm 9.38$  years and the same of the females was  $42.62 \pm 11.33$  years. The difference between the mean ages was statistically very highly significant ( $p < 0.001$ ).

### Assessment of related variables.

The variables which were related to the diseases such as E.S.R  $\frac{1}{2}$  hour, E.S.R one hour and respiratory rate, PEFr were assessed before administration of the drug and after completion of the course of the drug.

### Assessment of E.S.R $\frac{1}{2}$ hr before and after administration of the drug.

| Level of E.S.R at half an hour (mm) | Before treatment |       | After treatment |       |
|-------------------------------------|------------------|-------|-----------------|-------|
|                                     | Frequency        | %     | Frequency       | %     |
| 0 -10                               | 37               | 90.24 | 39              | 95.12 |
| 10-20                               | 4                | 9.76  | 2               | 4.88  |

|        |    |       |    |       |
|--------|----|-------|----|-------|
| 20-30  | -  | -     | -  | —     |
| 30- 40 | -  | -     | -  | —     |
| Total  | 41 | 100.0 | 41 | 100.0 |

The above table states that the E.S.R level at ½ hr for the patients before undergoing the course of the drug after completion of the course. Before the course of the drug 90.24% of the patients had E.S.R ½ hr level in between 0 – 10mm. The remaining 9.76% had their level above 10 mm. After the course of the drug 95.12% of the subjects had 0- 10mm and the remaining 4.88% had that level above 10 mm.

**Assessment of E.S.R for 1 hr before and after taken the drug.**

| Level of E.S.R at one hour (mm) | Before treatment |       | After treatment |       |
|---------------------------------|------------------|-------|-----------------|-------|
|                                 | Frequency        | %     | Frequency       | %     |
| 0 -10                           | 16               | 39.02 | 32              | 78.05 |
| 10-20                           | 21               | 51.22 | 7               | 17.07 |
| 20-30                           | 2                | 4.88  | 1               | 2.44  |
| 30- 40                          | 1                | 2.44  | 1               | 2.44  |
| 40-50                           | 1                | 2.44  | —               | —     |
| Total                           | 41               | 100.0 | 41              | 100.0 |

The before and after administration of the drug, the level of E.S.R. at 1 hour was shown in the above table. Majority (51.2%) of the cases had their E.S.R level

between 10 – 20 mm and 39.02% of them had 0-10 mm. The level 20-30 mm was 4.88%. The remaining had their E.S.R at one hour is above 30 mm.

After the drug administration, 78.05% of the cases had their level of E.S.R between 0 -10 mm. Then the level of E.S.R at one hour between 10-20 mm was 17.07%. The remaining was above 20-30 mm.

#### **Assessment of RR before and after the drug administration:**

The respiratory rate of the study subjects before and after administration of the drug as follows.

#### **Assessment of RR before and after the drug administration:**

| <b>Level of Respiratory Rate</b> | <b>Before</b>    |          | <b>After</b>     |          |
|----------------------------------|------------------|----------|------------------|----------|
|                                  | <b>Frequency</b> | <b>%</b> | <b>Frequency</b> | <b>%</b> |
| 15-20                            | -                | -        | 35               | 85.37    |
| 20-25                            | 7                | 17.07    | 6                | 14.63    |
| 25-30                            | 27               | 65.86    | -                | -        |
| 30-35                            | 6                | 14.63    | -                | -        |
| 35-40                            | 1                | 2.44     | -                | -        |
| Total                            | 41               | 100.0    | 41               | 100.0    |

The respiratory level of the study subjects before and after the drug administration was shown in the above table. The respiratory level 15 – 20 before and after were 0% and 85.37% respectively. The level 20 – 25 of before and after were 17.07% and 14.63%, respectively. The levels 25 – 30 before and after were

65.86% and 0% respectively. The level 30-35 before and after were 14.63% and 0% respectively. The level 35-40 before and after were 2.44% and 0% respectively.

**Assessment of PEFr before and after the drug administration:**

| Level of PEFr | Before    |       | After     |       |
|---------------|-----------|-------|-----------|-------|
|               | Frequency | %     | Frequency | %     |
| 50-100        | 11        | 26.83 | -         | -     |
| 100-150       | 11        | 26.83 | 1         | 2.44  |
| 150-200       | 14        | 34.15 | 2         | 4.88  |
| 200-250       | 5         | 12.19 | 4         | 9.76  |
| 250-300       | -         | -     | 12        | 29.27 |
| 300-350       | -         | -     | 16        | 39.02 |
| 350-400       | -         | -     | 6         | 14.63 |
| Total         | 41        | 100.0 | 41        | 100.0 |

The PEFr value of the study subjects before and after the drug administration was shown in the above table. The PEFr value was maximum 34.15% between 150-200 before treatment and was maximum 39.02% between 300-350 after treatment.

**Effectiveness of the drug Karpooora silajithu parpam.** The effectiveness of the drug **Karpooora silajithu parpam** was analysed by comparing the averages before and after administration of the drug in respect of E.S.R at ½ hr, 1 hr and RR, PEFR.

**Effectiveness of the drug Karpooora silajithu parpam**

| Variables           | Before Treatment |       | After treatment |        | Difference |        | ‘t’  | d.f | Significance |
|---------------------|------------------|-------|-----------------|--------|------------|--------|------|-----|--------------|
|                     | Mean             | S.D   | Mean            | S.D    | Mean       | S.D    |      |     |              |
| E.S.R ½ an hour(mm) | 6.78             | 3.93  | 4.09            | 3.0    | 2.68       | 2.08   | 8.3  | 40  | p<0.001      |
| E.S.R 1 hour(mm)    | 13.83            | 8.16  | 8.85            | 5.34   | 4.98       | 4.24   | 7.5  | 40  | p<0.001      |
| RR                  | 28.42            | 3.13  | 19.44           | 1.64   | 8.98       | 3.45   | 16.6 | 40  | P<0.001      |
| PEFR                | 146.59           | 48.46 | 356.34          | 371.72 | -209.76    | 378.98 | -2.5 | 40  | P<0.001      |

The above table shows the effectiveness of the drug. The mean E.S.R. ½ hr before and after the drugs were  $9.2 \pm 5.1$  and  $5.4 \pm 2.5$  mm. The difference of mean was statistically very highly significant ( $p < 0.001$ ). Similarly the E.S.R at 1 hr before and after the drug were  $18.2 \pm 10.5$  and  $10.4 \pm 4.3$  mm. The mean difference was statistically highly significant ( $p < 0.001$ ). Before administration of the drug the mean RR level was  $24.4 \pm 2.2$  and the same after administration was  $18.9 \pm 1.4$ . The difference between the means was statistically very significant ( $p < 0.001$ ). The

mean PEFr value before and after the drugs were  $146.59 \pm 48.46$  and  $356.34 \pm 371.72$ . The difference between the means was statistically very significant ( $p < 0.001$ ).

**Prognosis of the drug :**

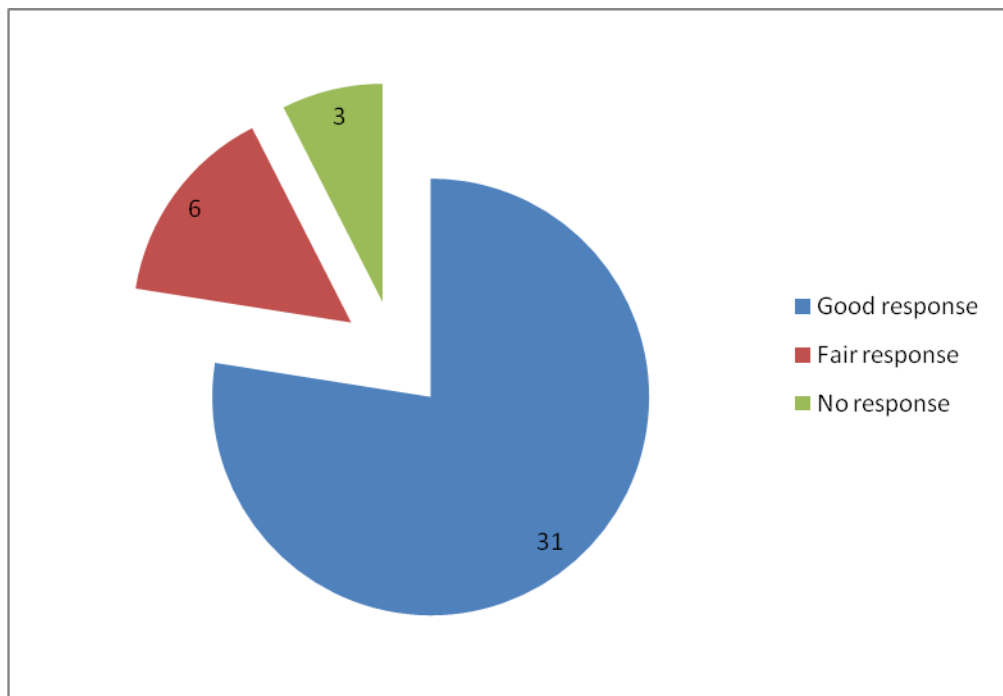
| Sl No:       | Category of prognosis | No: of Subjects | Percentage |
|--------------|-----------------------|-----------------|------------|
| 1.           | Good                  | 30              | 73         |
| 2.           | Fair                  | 8               | 19         |
| 3.           | Poor                  | 3               | 8          |
| <b>Total</b> |                       | 41              | 100.0      |

The above table shows the response of the drug was good among the 73% of the subjects. The remaining 19% and 8% of the subjects were fair and poor response of the drugs respectively.

**INFERENCE:**

The drug **Karpoura silajithu parpam** was effective and showed good response to **EraippuErumal** clinical trials.









## Discussion

The therapeutic efficacy of karpooira silajithu parpam disease Eraipu Erumal was studied Bio-chemistry pharmacological, micro biologically and clinically. According to Siddha concept, the demanagement of the kapha humour is basic abnormality in Eraippu Erumal.

Thus the affected kapha humour manifests as clinically symptoms like difficulty in breathing ,cough with or with out expectoration, sneezing, tightness, chest, wheezing etc. From the review of literatures it is inferred that the drug Karpooira silajithu parpam selected for this study processes sweet taste. But Venthayam taste is bitter and Bio- transformation is pungent taste. bitter and pungent tastes has the tendency to mitigate the harmful effects of the vified kapha humour and vaatha humour.

### கைப்பு சுவையின் பண்பும் செய்கையும்

<sup>58</sup>“வேறுகாரணம் விளைந்த வுண்வெறுப்  
சுவையாம் பித்த மைய விகற்பங்  
- - - - - கர கரப்  
புளதாம் உளங்கொடு கைப்பை.”

<sup>59</sup> “தொண்டையிலுண்டாம் மிண்டுசெய் பிணிகள்

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58,59.Maruthuva thani paadal –siddhamaruthuvanga surukkam.page no:38.

### கார்ப்பு சுவையின் பண்பும் செய்கையும்:

நெய்ப்பையும் ஒழித்திடும் ஐயவிகாரம்  
அழித்திடும் நாடி நாள அடைப்பினைக்  
கழற்றியே தடம்பெற வியற்றுங் கார்ப்பாஞ்  
சுவைதனைக் கனக்கோடுண்ணில்”

Karpooa silajithu parpam is sweetish to grow the life span of 5 senses. It clears vadha, pitha and toxicity instantly. It cures the patients who are suffering from Tuberculosis and blood stained sputum. It keeps the throat clear and helps to sing well. Throat becomes clean, since the sweatness perform all the above said function karpooa silajithu parpam cures bronchial asthma persuaded by vadha and kapha.

### இனிப்பு சுவையின் பண்பும் செய்கையும்

<sup>60</sup> “அகவை புலன் பொறியாயுள்-மிக நீரும்  
காலழல் நச்சங் கடிதகற்றும் ஈளையும்  
சாலக்குருதியுமிழ் காசநோ-யாலவத்தை  
கொண்டோர்க்கிதமாங் குரள்வளைப் பண்ணியளிக்கும்  
தொண்டைதுலக்குமுறும் சுண்டியமெய்-கண்டோர்

All this factor seems to neutralized the vitilated kapha vatha humours. This explanation is arrived on the basis of the analysis of Gunapadam aspect of the drug which correlates with that of the pharmacological analysis and the clinical assessment.

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60.(Maruthuvathanipadal) Siddha maruthuvanga surukkam Dr.s.k.Uththamarayan.HPIM.Page no:30.

Bio chemical analysis shows the presence of calcium, sulphate, chloride, ferrous iron, sulphates are present in karpooora silajithu parpam. **Chloride** is involved in the acid base equilibrium fluid balance and osmotic pressure. **Ferrous iron** is associated with effective immune competence of the body.

Pharmacological analysis show that this drug has got **significant anti-spasmodic activity** thus relaxing the smooth muscles of the respiratory tract and **significant Anti- histaminic activity** thus reducing the mucus secretion and wheezing is effectively controlled.

Microbiological analysis shows that this drug is **sensitive to streptococcus pneumonia** and **moderate to staphylococcus aureus**.

Scanning electron microscope (SEM) analysis report shows that average size of the particle of Karpooora silajithu parpam is 59.2nm. So it is digested instantly.

Inductively coupled plasma atomic emission spectroscopy (Icp-Aes) analysis report shows that minerals Se,Zn,Si,Fe are present in high proportion in Karpooora silajithu parpam.

Physico-chemical standardisation result is total ash in Karpoorasilajithu parpam contain 99.22% of total ash.

In the clinical assessment of the 41 cases selected 30 showed good response, 8 showed fair response and 3 showed poor responses.

Bio – statistical analysis shows that the drug is effective in controlling Eraippu Erumal. Karpooora silajithu parpam was assessed by ESR,RR and PEFr value from the before treatment. Patient showed good prognosis and the drug was effective and good response to Eraippu Erumal clinical trials.

## SUMMARY

The **Karpooora silajithu parpam** was taken to establish its efficacy in treating Eraippu Erumal. The dose of **Karpooora silajithu parpam** is 100mg with Luke warm cow milk taken before food.

A brief description pertaining to its Botanical aspect, Phyto-chemical constituents has been referred.

A review of the literatures about the drug and its significance in Gunapadam aspect since ancient period has been done.

Updated information from various literatures and internet has been referred and documented.

Biochemical analysis shows the presence of Chloride, Sulphate, Ferrous Iron, and Calcium.

Pharmacological analysis shows that the drug has got significant Anti-spasmodic activity and Anti-Histaminic activity.

Micro- biological analysis shows that this drug is sensitive to Streptococcus pneumonia, Moderate to Staphylococcus aureus.

From the clinical assessment, it is inferred that **Karpooora silajithu parpam** possesses good efficacy in treatment of Eraippu Erumal and the drug has no untowards effects.

Biostatistical analysis also revealed that this drug has got significant effect in treating Eraippu Erumal.

## CONCLUSION

From the studies **Karpooora silajithu parpam** has been concluded to be a **significant Anti-spasmodic and Anti-histaminic drug** and hence effective for Eraippu Erumal.

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27. Astanga Giruthayam
28. Anupoga Vaithiya Navaneetham – Part 2
29. Agasthiyar Vaithiya Kaviyam

30. Anupoga Vilakkam – Mss Asan
31. Rasa Raththina Samutchayam
32. Nam Nattu Vaithiyam
33. The Test Book Of Mineralogy
34. Mooligai Marmam
35. Anupoga Vaithiya Deva Rakasiyam
36. Gurupadam Mooligai Vaguppu – Murugese Muthaliyar
37. Indian Materia Medica – Vol :I
38. Siddha Maruthuvam(Pothu) – Dr.Kuppusamy Muthaliar

**Websites:**

39. [www.wikipedia.org](http://www.wikipedia.org)
40. [www.google.com](http://www.google.com)

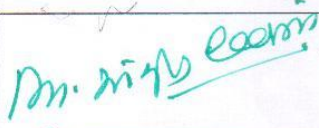




**GOVT. SIDDHA MEDICAL COLLEGE,  
PALAYAMKOTTAI,  
TIRUNELVELI – 627002.**

**SCREENING COMMITTEE**

**Candidate Reg No:32101508**

This is to certify that the dissertation topics Anti-inflammatory, Analgesic activities of the single drug MUTSANGAN ILAI CHOORANAM, and Bronchodilator, Anti Spasmodic & Anti Histaminic activities of the compound drug KARPOORASILAJITH PARPAM have been approved by the screening committee.

| S.No | Name  | Signature   |
|------|---|---|
| 1.   | Pro. Dr. N. CHANDRAMOHAN DOSS, MD (S)<br>Principal & Chairman |  |
| 2.   | Pro. Dr. R. THANGAMONE MD (S)                                 |  |
| 3.   | Dr. A. SUBRAMANIAN, MD (S)                                    |  |

(Kindly make sure that the minutes of the meeting duly signed by all the participation are maintained by the college office)

## IN-PATIENT

|  |           |                                 |            |                          |               |                                |             |                          |        |    |    |    |
|--|-----------|---------------------------------|------------|--------------------------|---------------|--------------------------------|-------------|--------------------------|--------|----|----|----|
| 1. Name  | Mugamathu | Age : 60                        | Sex : M    | Ward : PGII              | I.P.No : 2528 | Occupation : Famer             |             |                          |        |    |    |    |
| Date of Admission : 02.08.2012   |           | Date of Discharge : 22.08.2012  |            |                          |               | No.of Days Treated : 20        |             |                          |        |    |    |    |
| Drug : Karpoora silasathu parpam 100mg bd a Day With Luck warm cow milk        |           |                                 |            |                          | Diagnosis     | Eraippu Erumal                 |             |                          |        |    |    |    |
| Complaints & Duration  |           | Investigations Before Treatment |            |                          |               | Investigations After Treatment |             |                          |        |    |    |    |
| Cough without expectoration, breathlessness tightness of chest since 1 ½ Years |           | BLOOD                           |            |                          |               | BLOOD                          |             |                          |        |    |    |    |
|  |           | TC - 9800cells/cu.mm            |            |                          |               | TC 9600Cells/cu.mm             |             |                          |        |    |    |    |
|  |           | DC                              | P - 65%    | L - 29%                  | E- 6%         | DC                             | P - 68%     | L - 29%                  | E - 3% |    |    |    |
|  |           | ESR                             | ½ hr - 6mm | 1 hr - 22mm              | ESR           | ½ hr - 5mm                     | 1 hr - 10mm |                          |        |    |    |    |
|  |           | Hb                              | 60%        |                          |               | Hb                             | 65%         |                          |        |    |    |    |
| Diet<br><br>Mixed diet   |           | Bl.Sugar(R)                     |            | 100 mgs%                 |               | Bl.Sugar(R)                    |             | 94 mgs%                  |        |    |    |    |
|  |           | Bl. Urea                        |            | 27 mgs%                  |               | Bl. Urea                       |             | 30 mgs%                  |        |    |    |    |
|  |           | Serum Cholesterol               |            | 182 mgs%                 |               | Serum Cholesterol              |             | 189 mgs%                 |        |    |    |    |
|  |           | URINE                           |            |                          |               | URINE                          |             |                          |        |    |    |    |
|  |           | Albumin                         |            | Nil                      |               | Albumin                        |             | Nil                      |        |    |    |    |
| History<br><br>History of similar episodes priviously                          |           | Sugar                           |            | Nil                      |               | Sugar                          |             | Nil                      |        |    |    |    |
|  |           | Deposits                        |            | 1-2 epithelial cells/HPF |               | Deposits                       |             | NAD                      |        |    |    |    |
|  |           | PEFR                            |            | 160 Lits/min             |               | PEFR                           |             | 350 Lits/min             |        |    |    |    |
|  |           | CHEST X – RAY                   |            | Normal                   |               | RESPONSE                       |             | Good, No adverse effect. |        |    |    |    |
|  |           | SPUTUM FOR AFB                  |            | Negative                 |               |                                |             |                          |        |    |    |    |
|  |           | MANTOUX                         |            | Negative                 |               |                                |             |                          |        |    |    |    |
| Days   |           | 1                               | 3          | 6                        | 9             | 12                             | 15          | 18                       | 20     | 25 | 35 | 45 |
| Cough  |           | P                               | P          | P                        | P             | R                              | R           | R                        | A      |    |    |    |
| Breathlessness   |           | +++                             | +++        | ++                       | ++            | ++                             | +           | +                        | A      |    |    |    |
| Sputum   | Colour    | W                               | W          | W                        | W             | W                              | W           | W                        | A      |    |    |    |
|  | Quantity  | 5ml                             | 10ml       | 12ml                     | 15ml          | 10ml                           | 5ml         | 2ml                      | A      |    |    |    |
| Rhonchi  |           | +++                             | +++        | ++                       | ++            | ++                             | +           | +                        | A      |    |    |    |
| RR   |           | 30/min                          | 30/min     | 28/min                   | 26/min        | 25/min                         | 24/min      | 21/min                   | 20/min |    |    |    |

**P** – Present

**R** – Reduced

**A** – Absent

**W** – Whitish

**Y** Yellowish

**Good Response** : Significant amelioration of signs & symptoms

Mild +

Moderate ++

Severe +++

**Fair Response** : Partial amelioration of signs and symptoms

**Poor response** : In significant amelioration of signs and symptoms

## IN-PATIENT

|   |              |                                 |            |             |               |                                  |             |                          |        |        |    |  |
|---|--------------|---------------------------------|------------|-------------|---------------|----------------------------------|-------------|--------------------------|--------|--------|----|--|
| 2. Name   | Vembu konaar | Age : 60                        | Sex : M    | Ward : PGII | I.P.No : 2487 | Occupation : Kola powder vendor. |             |                          |        |        |    |  |
| Date of Admission : 14.08.2012  |              | Date of Discharge : 07.08.2012  |            |             |               | No.of Days Treated : 23          |             |                          |        |        |    |  |
| Drug : Karpoorasilasathu parpam 100mg bd a Day With Luck warm cow milk                  |              |                                 |            | Diagnosis   |               | Eraippu Erumal                   |             |                          |        |        |    |  |
| Complaints & Duration   |              | Investigations Before Treatment |            |             |               | Investigations After Treatment   |             |                          |        |        |    |  |
| Cough without expectoration, difficulty in breathing, tightness of chest since 4 years. |              | BLOOD                           |            |             |               | BLOOD                            |             |                          |        |        |    |  |
|   |              | TC - 8000cells/cu.mm            |            |             |               | TC 9200 Cells/cu.mm              |             |                          |        |        |    |  |
|   |              | DC                              | P - 55%    | L - 40%     | E- 5%         | DC                               | P - 54%     | L - 42%                  | E - 4% |        |    |  |
|   |              | ESR                             | ½ hr - 8mm | 1 hr - 16mm | ESR           | ½ hr - 6mm                       | 1 hr - 12mm |                          |        |        |    |  |
|   |              | Hb                              |            | 68%         |               | Hb                               | 72 %        |                          |        |        |    |  |
| Diet<br><br>Mixed diet  |              | Bl.Sugar(R)                     |            | 92mgs%      |               | Bl.Sugar(R)                      |             | 87 mgs%                  |        |        |    |  |
|   |              | Bl. Urea                        |            | 23 mgs%     |               | Bl. Urea                         |             | 32 mgs%                  |        |        |    |  |
|   |              | Serum Cholesterol               |            | 189 mgs%    |               | Serum Cholesterol                |             | 205mgs%                  |        |        |    |  |
|   |              | URINE                           |            |             |               | URINE                            |             |                          |        |        |    |  |
|   |              | Albumin                         |            | Nil         |               | Albumin                          |             | Nil                      |        |        |    |  |
| History<br><br>History of smoking, alcoholism present                                   |              | Sugar                           |            | Nil         |               | Sugar                            |             | Nil                      |        |        |    |  |
|   |              | Deposits                        |            | NAD         |               | Deposits                         |             | NAD                      |        |        |    |  |
|   |              | 140 PEFR                        |            | 189Lits/min |               | PEFR                             |             | 270 Lits/min             |        |        |    |  |
|   |              | CHEST X – RAY                   |            | Normal      |               | RESPONSE                         |             | Good, No adverse effect. |        |        |    |  |
|   |              | SPUTUM FOR AFB                  |            | Negative    |               |                                  |             |                          |        |        |    |  |
|   |              | MANTOUX                         |            | Negative    |               |                                  |             |                          |        |        |    |  |
|   |              |                                 |            |             |               |                                  |             |                          |        |        |    |  |
| Days  | 1            | 3                               | 6          | 9           | 12            | 15                               | 18          | 21                       | 23     | 35     | 45 |  |
| Cough   | P            | P                               | P          | P           | P             | P                                | R           | R                        | A      |        |    |  |
| Breathlessness  | ++           | ++                              | +          | +           | +             | +                                | +           | A                        | A      |        |    |  |
| Sputum  | Colour       | W                               | W          | W           | W             | W                                | A           | A                        | A      |        |    |  |
|   | Quantity     | 10ml                            | 10ml       | 15ml        | 15ml          | 10ml                             | 5ml         | 5ml                      | 2ml    | A      |    |  |
| Rhonchi   |              | ++                              | ++         | ++          | +             | +                                | +           | +                        | +      | A      |    |  |
| RR  |              | 30/min                          | 30/min     | 27/min      | 26/min        | 20/min                           | 20/min      | 19/min                   | 19/min | 18/min |    |  |

**P** – Present

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**Good Response** : Significant amelioration of signs & symptoms

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**Poor response** : In significant amelioration of signs and symptoms

## IN-PATIENT

|  |              |                                 |            |              |               |                                |             |                          |        |    |    |    |
|--|--------------|---------------------------------|------------|--------------|---------------|--------------------------------|-------------|--------------------------|--------|----|----|----|
| 3. Name  | Sankarammaal | Age : 57                        | Sex : F    | Ward : PGII  | I.P.No : 2685 | Occupation : Beedi woker       |             |                          |        |    |    |    |
| Date of Admission : 14.08.2012   |              | Date of Discharge : 07.09.2012  |            |              |               | No.of Days Treated : 23        |             |                          |        |    |    |    |
| Drug : Karpooa silasathu parpam 100mg bd a Day With Luck warm cow milk   |              |                                 |            |              | Diagnosis     | Eraippu Erumal                 |             |                          |        |    |    |    |
| Complaints & Duration  |              | Investigations Before Treatment |            |              |               | Investigations After Treatment |             |                          |        |    |    |    |
| Cough without expectoration<br>breathlessness, difficulty in<br>breathing, wheezing, tightness<br>of chest since 1 year. |              | BLOOD                           |            |              |               | BLOOD                          |             |                          |        |    |    |    |
|  |              | TC - 8700cells/cu.mm            |            |              |               | TC 9200Cells/cu.mm             |             |                          |        |    |    |    |
|  |              | DC                              | P - 51%    | L - 34%      | E- 15%        | DC                             | P - 60%     | L - 39 %                 | E - 1% |    |    |    |
|  |              | ESR                             | ½ hr - 3mm | 1 hr - 7mm   | ESR           | ½ hr - 3mm                     | 1 hr - 6 mm |                          |        |    |    |    |
|  |              | Hb                              |            | 9.6 %        |               | Hb                             | 11.4 %      |                          |        |    |    |    |
| Diet<br><br>Mixed diet   |              | Bl.Sugar(R)                     |            | 84 mgs%      |               | Bl.Sugar(R)                    | 86mgs%      |                          |        |    |    |    |
|  |              | Bl. Urea                        |            | 26 mgs%      |               | Bl. Urea                       | 36 mgs%     |                          |        |    |    |    |
|  |              | Serum Cholesterol               |            | 122 mgs%     |               | Serum Cholesterol              | 153 mgs%    |                          |        |    |    |    |
|  |              | URINE                           |            |              |               | URINE                          |             |                          |        |    |    |    |
|  |              | Albumin                         |            | Nil          |               | Albumin                        | Nil         |                          |        |    |    |    |
| History<br><br>No Family history   |              | Sugar                           |            | Nil          |               | Sugar                          | Nil         |                          |        |    |    |    |
|  |              | Deposits                        |            | NAD          |               | Deposits                       | NAD         |                          |        |    |    |    |
|  |              | PEFR                            |            | 200 Lits/min |               | PEFR                           |             | 320 Lits/min             |        |    |    |    |
|  |              | CHEST X – RAY                   |            | Normal       |               | RESPONSE                       |             | Good, No adverse effect. |        |    |    |    |
|  |              | SPUTUM FOR AFB                  |            | Negative     |               |                                |             |                          |        |    |    |    |
|  |              | MANTOUX                         |            | Negative     |               |                                |             |                          |        |    |    |    |
| Days   |              | 1                               | 3          | 6            | 9             | 12                             | 15          | 18                       | 21     | 25 | 35 | 45 |
| Cough  |              | P                               | P          | P            | R             | R                              | R           | R                        | A      |    |    |    |
| Breathlessness   |              | ++                              | ++         | ++           | ++            | +                              | +           | +                        | A      |    |    |    |
| Sputum   | Colour       | W                               | W          | W            | W             | W                              | W           | W                        | A      |    |    |    |
|  | Quantity     | 5ml                             | 10ml       | 12ml         | 15ml          | 10ml                           | 5ml         | 2ml                      | A      |    |    |    |
| Rhonchi  |              | +++                             | ++         | ++           | ++            | ++                             | +           | +                        | A      |    |    |    |
| RR   |              | 28/min                          | 28/min     | 26/min       | 26/min        | 25/min                         | 25/min      | 20/min                   | 19/min |    |    |    |

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**Good Response** : Significant amelioration of signs & symptoms

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## IN-PATIENT

|  |          |  |        |                         |        |            |                                |                      |                          |              |             |     |     |     |    |
|--|----------|--|--------|-------------------------|--------|------------|--------------------------------|----------------------|--------------------------|--------------|-------------|-----|-----|-----|----|
| 4. Name  | Chandra  | Age :  | 60     | Sex :                   | F      | Ward :     | PGII                           | I.P.No :             | 2849                     | Occupation : | Beedi woker |     |     |     |    |
| Date of Admission :  |          | 28.08.2012   |        | Date of Discharge :     |        | 23.09.2012 |                                | No.of Days Treated : |                          | 26           |             |     |     |     |    |
| Drug :   |          | Karpoora silasathu parpam 100mg bd a Day With Luck warm cow milk |        |                         |        | Diagnosis  |                                | Eraippu Erumal       |                          |              |             |     |     |     |    |
| Complaints & Duration  |          | Investigations Before Treatment                                  |        |                         |        |            | Investigations After Treatment |                      |                          |              |             |     |     |     |    |
| Cough without expectoration<br>breathlessness, tightness of<br>chest since 4 years |          | BLOOD  |        |                         |        |            | BLOOD                          |                      |                          |              |             |     |     |     |    |
|  |          | TC - 8500cells/cu.mm   |        |                         |        |            | TC 8900 Cells/cu.mm            |                      |                          |              |             |     |     |     |    |
|  |          | DC   | P -    | 67%                     | L -    | 30%        | E-                             | 3%                   | DC                       | P -          | 59%         | L - | 39% | E - | 2% |
|  |          | ESR  | ½ hr - | 15mm                    | 1 hr - | 32mm       | ESR                            | ½ hr -               | 6mm                      | 1 hr -       | 12mm        |     |     |     |    |
|  |          | Hb   | 9.6%   |                         |        |            | Hb                             | 12.0%                |                          |              |             |     |     |     |    |
| Diet<br><br>Mixed diet   |          | Bl.Sugar(R)  |        | 101mgs%                 |        |            | Bl.Sugar(R)                    |                      | 82 mgs%                  |              |             |     |     |     |    |
|  |          | Bl. Urea   |        | 18 mgs%                 |        |            | Bl. Urea                       |                      | 20 mgs%                  |              |             |     |     |     |    |
|  |          | Serum Cholesterol  |        | 122 mgs%                |        |            | Serum Cholesterol              |                      | 132mgs%                  |              |             |     |     |     |    |
|  |          | URINE  |        |                         |        |            | URINE                          |                      |                          |              |             |     |     |     |    |
|  |          | Albumin  |        | Nil                     |        |            | Albumin                        |                      | Nil                      |              |             |     |     |     |    |
| History<br><br>No Family history   |          | Sugar  |        | Nil                     |        |            | Sugar                          |                      | Nil                      |              |             |     |     |     |    |
|  |          | Deposits   |        | 2 to 4 epithelial cells |        |            | Deposits                       |                      | NAD                      |              |             |     |     |     |    |
|  |          | PEFR   |        | 160Lits/min             |        |            | PEFR                           |                      | 240 Lits/min             |              |             |     |     |     |    |
|  |          | CHEST X – RAY  |        | Bronchitis              |        |            | RESPONSE                       |                      | Fair, No adverse effect. |              |             |     |     |     |    |
|  |          | SPUTUM FOR AFB   |        | Negative                |        |            |                                |                      |                          |              |             |     |     |     |    |
| MANTOUX  |          | Negative   |        |                         |        |            |                                |                      |                          |              |             |     |     |     |    |
| Days   |          | 1  | 3      | 6                       | 9      | 12         | 15                             | 18                   | 21                       | 25           | 35          | 45  |     |     |    |
| Cough  |          | P  | P      | P                       | P      | P          | R                              | R                    | A                        | A            |             |     |     |     |    |
| Breathlessness   |          | ++   | ++     | ++                      | +      | +          | +                              | +                    | +                        | +            |             |     |     |     |    |
| Sputum   | Colour   | W  | W      | W                       | W      | W          | W                              | W                    | W                        | A            |             |     |     |     |    |
|  | Quantity | 10ml   | 10ml   | 5ml                     | 10ml   | 8ml        | 5ml                            | 5ml                  | 2ml                      | A            |             |     |     |     |    |
| Rhonchi  |          | ++   | ++     | ++                      | ++     | +          | +                              | +                    | +                        | +            |             |     |     |     |    |
| RR   |          | 25/min   | 25/min | 24/min                  | 24/min | 23/min     | 22/min                         | 22/min               | 22/min                   | 20/min       |             |     |     |     |    |

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## IN-PATIENT

|  |          |                                 |            |              |                         |                                |             |                          |        |        |    |    |
|--|----------|---------------------------------|------------|--------------|-------------------------|--------------------------------|-------------|--------------------------|--------|--------|----|----|
| 5. Name  | Raasu    | Age : 60                        | Sex : M    | Ward : PGII  | I.P.No : 2881           | Occupation : Coolie            |             |                          |        |        |    |    |
| Date of Admission : 31.08.2012   |          | Date of Discharge : 26.09.2012  |            |              | No.of Days Treated : 27 |                                |             |                          |        |        |    |    |
| Drug : Karpoor silasathu parpam 100mg bd a Day With Luck warm cow milk |          |                                 |            | Diagnosis    | Eraippu Erumal          |                                |             |                          |        |        |    |    |
| Complaints & Duration  |          | Investigations Before Treatment |            |              |                         | Investigations After Treatment |             |                          |        |        |    |    |
| Wheezing, difficulty in breathing, Cough present since 2 years         |          | BLOOD                           |            |              |                         | BLOOD                          |             |                          |        |        |    |    |
|  |          | TC - 9800cells/cu.mm            |            |              |                         | TC 9700Cells/cu.mm             |             |                          |        |        |    |    |
|  |          | DC                              | P - 68%    | L - 26%      | E- 6%                   | DC                             | P - 69%     | L - 27%                  | E - 4% |        |    |    |
|  |          | ESR                             | ½ hr - 7mm | 1 hr - 10mm  | ESR                     | ½ hr - 6mm                     | 1 hr - 10mm |                          |        |        |    |    |
|  |          | Hb                              |            | 74%          |                         | Hb                             |             | 75%                      |        |        |    |    |
| Diet<br><br>Mixed diet   |          | Bl.Sugar(R)                     |            | 120 mgs%     |                         | Bl.Sugar(R)                    |             | 124 mgs%                 |        |        |    |    |
|  |          | Bl. Urea                        |            | 28mgs%       |                         | Bl. Urea                       |             | 26 mgs%                  |        |        |    |    |
|  |          | Serum Cholesterol               |            | 160 mgs%     |                         | Serum Cholesterol              |             | 158 mgs%                 |        |        |    |    |
|  |          | URINE                           |            |              |                         | URINE                          |             |                          |        |        |    |    |
|  |          | Albumin                         |            | Nil          |                         | Albumin                        |             | Nil                      |        |        |    |    |
| History<br><br>History of allergy present                              |          | Sugar                           |            | Nil          |                         | Sugar                          |             | Nil                      |        |        |    |    |
|  |          | Deposits                        |            | NAD          |                         | Deposits                       |             | NAD                      |        |        |    |    |
|  |          | PEFR                            |            | 160 Lits/min |                         | PEFR                           |             | 158Lits/min              |        |        |    |    |
|  |          | CHEST X – RAY                   |            | Normal       |                         | RESPONSE                       |             | Fair, No adverse effect. |        |        |    |    |
|  |          | SPUTUM FOR AFB                  |            | Negative     |                         |                                |             |                          |        |        |    |    |
|  |          | MANTOUX                         |            | Negative     |                         |                                |             |                          |        |        |    |    |
| Days   |          | 1                               | 3          | 6            | 9                       | 12                             | 15          | 18                       | 21     | 25     | 35 | 45 |
| Cough  |          | P                               | P          | P            | P                       | P                              | R           | R                        | R      | A      |    |    |
| Breathlessness   |          | +++                             | ++         | ++           | ++                      | +                              | +           | +                        | A      | A      |    |    |
| Sputum   | Colour   | W                               | W          | W            | W                       | W                              | W           | A                        | A      | A      |    |    |
|  | Quantity | 10ml                            | 15ml       | 10ml         | 8ml                     | 5ml                            | 5ml         | 2ml                      | A      | A      |    |    |
| Rhonchi  |          | +++                             | ++         | ++           | ++                      | +                              | +           | +                        | A      | A      |    |    |
| RR   |          | 36/min                          | 36/min     | 33/min       | 30/min                  | 26/min                         | 24/min      | 22min                    | 21/min | 20/min |    |    |

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## IN-PATIENT

|   |                 |  |                        |                                       |                    |             |            |  |                |                            |           |           |  |
|---|-----------------|--|------------------------|---------------------------------------|--------------------|-------------|------------|--|----------------|----------------------------|-----------|-----------|--|
| <b>6. Name</b> Selvarajan   |                 | <b>Age :</b> 58                        |                        | <b>Sex :</b> M                        |                    | Coolie PGII |            | <b>I.P.No :</b> 3245                   |                | <b>Occupation :</b> Coolie |           |           |  |
| <b>Date of Admission :</b> 08.10.2012   |                 |  |                        | <b>Date of Discharge :</b> 24.10.2012 |                    |             |            | <b>No.of Days Treated :</b> 16         |                |                            |           |           |  |
| <b>Drug :</b> Karpoor silasathu parpam 100mg bd a Day With Luck warm cow milk   |                 |  |                        |                                       |                    |             |            | <b>Diagnosis</b> Eraippu Erumal        |                |                            |           |           |  |
| <b>Complaints &amp; Duration</b><br>Difficulty in bresathing, chest tightness, sneezing, headache, running nose since 3 years |                 | <b>Investigations Before Treatment</b> |                        |                                       |                    |             |            | <b>Investigations After Treatement</b> |                |                            |           |           |  |
|   |                 | <b>BLOOD</b>                           |                        |                                       |                    |             |            | <b>BLOOD</b>                           |                |                            |           |           |  |
|   |                 | <b>TC</b> - 8700cells/cu.mm            |                        |                                       |                    |             |            | <b>TC</b> 8800 Cells/cu.mm             |                |                            |           |           |  |
|   |                 | <b>DC</b>                              | <b>P</b> - 68%         | <b>L</b> - 27%                        | <b>E-</b> 5%       |             | <b>DC</b>  | <b>P</b> - 69%                         | <b>L</b> - 29% | <b>E</b> - 2%              |           |           |  |
|   |                 | <b>ESR</b>                             | $\frac{1}{2}$ hr - 9mm |                                       | <b>1 hr</b> - 20mm |             | <b>ESR</b> | $\frac{1}{2}$ hr - 4mm                 |                | <b>1 hr</b> - 10mm         |           |           |  |
|   |                 | Hb                                     |                        | 72%                                   |                    |             |            | Hb                                     |                | 70%                        |           |           |  |
| <b>Diet</b><br><br>Mixed diet   |                 | Bl.Sugar(R)                            |                        | 104mgs%                               |                    |             |            | Bl.Sugar(R)                            |                | 100mgs%                    |           |           |  |
|   |                 | Bl. Urea                               |                        | 18mgs%                                |                    |             |            | Bl. Urea                               |                | 18 mgs%                    |           |           |  |
|   |                 | Serum Cholesterol                      |                        | 168 mgs%                              |                    |             |            | Serum Cholesterol                      |                | 160 mgs%                   |           |           |  |
|   |                 | <b>URINE</b>                           |                        |                                       |                    |             |            | <b>URINE</b>                           |                |                            |           |           |  |
|   |                 | Albumin                                |                        | Nil                                   |                    |             |            | Albumin                                |                | Nil                        |           |           |  |
| <b>History</b><br><br>History of allergy present  |                 | Sugar                                  |                        | Nil                                   |                    |             |            | Sugar                                  |                | Nil                        |           |           |  |
|   |                 | Deposits                               |                        | NAD                                   |                    |             |            | Deposits                               |                | NAD                        |           |           |  |
|   |                 | <b>PEFR</b>                            |                        | 100 Lits/min                          |                    |             |            | <b>PEFR</b>                            |                | 290 Lits/min               |           |           |  |
|   |                 | <b>CHEST X – RAY</b>                   |                        | Normal                                |                    |             |            | <b>RESPONSE</b>                        |                | Good, No adverse effect.   |           |           |  |
|   |                 | <b>SPUTUM FOR AFB</b>                  |                        | Negative                              |                    |             |            |  |                |                            |           |           |  |
|   |                 | <b>MANTOUX</b>                         |                        | Negative                              |                    |             |            |  |                |                            |           |           |  |
| <b>Days</b>   |                 | <b>1</b>                               | <b>3</b>               | <b>6</b>                              | <b>9</b>           | <b>12</b>   | <b>15</b>  | <b>18</b>                              | <b>21</b>      | <b>25</b>                  | <b>35</b> | <b>45</b> |  |
| <b>Cough</b>  |                 | P                                      | P                      | P                                     | R                  | R           | A          |  |                |                            |           |           |  |
| <b>Breathlessness</b>   |                 | ++                                     | ++                     | ++                                    | ++                 | +           | A          |  |                |                            |           |           |  |
| <b>Sputum</b>   | <b>Colour</b>   | W                                      | W                      | W                                     | W                  | W           | W          |  |                |                            |           |           |  |
|   | <b>Quantity</b> | 8ml                                    | 8ml                    | 10ml                                  | 8ml                | 5ml         | 2ml        |  |                |                            |           |           |  |
| <b>Rhonchi</b>  |                 | ++                                     | ++                     | ++                                    | ++                 | +           | A          |  |                |                            |           |           |  |
| <b>RR</b>   |                 | 26/min                                 | 26/min                 | 24/min                                | 23/min             | 20/min      | 18/min     |  |                |                            |           |           |  |

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**W** – Whitish

**Y** Yellowish

**Good Response** : Significant amelioration of signs & symptoms

Mild +

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Severe +++

**Fair Response** : Partial amelioration of signs and symptoms

**Poor response** : In significant amelioration of signs and symptoms

## IN-PATIENT

|   |           |  |            |                     |             |        |        |                                |       |                          |        |         |  |        |  |
|---|-----------|--|------------|---------------------|-------------|--------|--------|--------------------------------|-------|--------------------------|--------|---------|--|--------|--|
| 7. Name   | Samidurai | Age :  | 35         | Sex :               | M           | Ward : | PGII   | I.P.No :                       | 3813  | Occupation :             | Coolie |         |  |        |  |
| Date of Admission :   |           | 08.11.2012   |            | Date of Discharge : |             |        |        | 10.12.2012                     |       | No.of Days Treated :     |        | 32      |  |        |  |
| Drug :  |           | Karpooa silasathu parpam 10mg bd a Day With Luck warm cow milk |            |                     |             |        |        | Diagnosis                      |       | Eraippu Erumal           |        |         |  |        |  |
| Complaints & Duration   |           | Investigations Before Treatment                                |            |                     |             |        |        | Investigations After Treatment |       |                          |        |         |  |        |  |
| Difficulty in breathing, tightness of chest, cough without expectoration sleeplessness since 2 years. |           | BLOOD  |            |                     |             |        |        | BLOOD                          |       |                          |        |         |  |        |  |
|   |           | TC - 9000cells/cu.mm   |            |                     |             |        |        | TC 8900 Cells/cu.mm            |       |                          |        |         |  |        |  |
|   |           | DC   | P - 63%    |                     | L - 23%     |        | E- 14% |                                | DC    | P - 69%                  |        | L - 29% |  | E - 2% |  |
|   |           | ESR  | ½ hr - 8mm |                     | 1 hr - 18mm |        | ESR    | ½ hr - 4mm                     |       | 1 hr - 10mm              |        |         |  |        |  |
|   |           | Hb   |            | 72%                 |             |        |        | Hb                             |       | 74%                      |        |         |  |        |  |
| Diet<br><br>Vegetarian  |           | Bl.Sugar(R)  |            | 80mgs%              |             |        |        | Bl.Sugar(R)                    |       | 83mgs%                   |        |         |  |        |  |
|   |           | Bl. Urea   |            | 17mgs%              |             |        |        | Bl. Urea                       |       | 18 mgs%                  |        |         |  |        |  |
|   |           | Serum Cholesterol  |            | 158mgs%             |             |        |        | Serum Cholesterol              |       | 310 mgs%                 |        |         |  |        |  |
|   |           | URINE  |            |                     |             |        |        | URINE                          |       |                          |        |         |  |        |  |
|   |           | Albumin  |            | Nil                 |             |        |        | Albumin                        |       | Nil                      |        |         |  |        |  |
| History<br><br>Related family History present   |           | Sugar  |            | Nil                 |             |        |        | Sugar                          |       | Nil                      |        |         |  |        |  |
|   |           | Deposits   |            | NAD                 |             |        |        | Deposits                       |       | NAD                      |        |         |  |        |  |
|   |           | PEFR   |            | 160Lits/min         |             |        |        | PEFR                           |       | 280 Lits/min             |        |         |  |        |  |
|   |           | CHEST X – RAY  |            | Normal              |             |        |        | RESPONSE                       |       | Good, No adverse effect. |        |         |  |        |  |
|   |           | SPUTUM FOR AFB   |            | Negative            |             |        |        |                                |       |                          |        |         |  |        |  |
|   |           | MANTOUX  |            | Negative            |             |        |        |                                |       |                          |        |         |  |        |  |
| Days  |           | 1  | 3          | 6                   | 9           | 12     | 15     | 18                             | 21    | 25                       | 35     | 45      |  |        |  |
| Cough   |           | P  | P          | P                   | R           | R      | R      | A                              | A     | A                        |        |         |  |        |  |
| Breathlessness  |           | ++   | ++         | ++                  | ++          | +      | +      | A                              | A     | A                        |        |         |  |        |  |
| Sputum  | Colour    | W  | W          | W                   | W           | W      | W      | A                              | A     | A                        |        |         |  |        |  |
|   | Quantity  | 5ml  | 5ml        | 4ml                 | 4ml         | 2ml    | 1ml    | A                              | A     | A                        |        |         |  |        |  |
| Rhonchi   |           | ++   | ++         | ++                  | ++          | +      | +      | +                              | A     | A                        |        |         |  |        |  |
| RR  |           | 27/min   | 26/min     | 25/min              | 23/min      | 23/min | 21/min | 20/min                         | 18/mi | 18/min                   |        |         |  |        |  |

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## IN-PATIENT

|   |            |                                 |            |         |                     |        |           |                                |            |                |                           |     |     |     |    |
|---|------------|---------------------------------|------------|---------|---------------------|--------|-----------|--------------------------------|------------|----------------|---------------------------|-----|-----|-----|----|
| 8. Name   | Mahalingam | Age :                           | 60         | Sex :   | M                   | Ward : | PGII      | I.P.No :                       | 4350       | Occupation :   | Fertilizer company worker |     |     |     |    |
| Date of Admission :   |            |                                 | 19.12.2012 |         | Date of Discharge : |        |           |                                | 04.01.2013 |                | No.of Days Treated :      |     | 16  |     |    |
| Drug : Karpoor silasathu parpam 100mg bd a Day With Luck warm cow milk  |            |                                 |            |         |                     |        | Diagnosis |                                |            | Eraippu Erumal |                           |     |     |     |    |
| Complaints & Duration   |            | Investigations Before Treatment |            |         |                     |        |           | Investigations After Treatment |            |                |                           |     |     |     |    |
| Cough without expectoration, wheezing, tightness of chest since 5years  |            | BLOOD                           |            |         |                     |        |           | BLOOD                          |            |                |                           |     |     |     |    |
|   |            | TC - 9,300cells/cu.mm           |            |         |                     |        |           | TC 9800 Cells/cu.mm            |            |                |                           |     |     |     |    |
|   |            | DC                              | P -        | 70%     | L -                 | 28%    | E-        | 2%                             | DC         | P -            | 68%                       | L - | 32% | E - | 2% |
|   |            | ESR                             | ½ hr -     | 14mm    | 1 hr -              | 30mm   | ESR       | ½ hr -                         | 9mm        | 1 hr -         | 15mm                      |     |     |     |    |
|   |            | Hb                              |            | 71%     |                     |        |           | Hb                             |            | 70%            |                           |     |     |     |    |
| Diet<br><br>Mixed diet  |            | Bl.Sugar(R)                     |            | 73mgs%  |                     |        |           | Bl.Sugar(R)                    |            | 70 mgs%        |                           |     |     |     |    |
|   |            | Bl. Urea                        |            | 18 mgs% |                     |        |           | Bl. Urea                       |            | 18 mgs%        |                           |     |     |     |    |
|   |            | Serum Cholesterol               |            |         | 173 mgs%            |        |           | Serum Cholesterol              |            |                | 170 mgs%                  |     |     |     |    |
|   |            | URINE                           |            |         |                     |        |           | URINE                          |            |                |                           |     |     |     |    |
|   |            | Albumin                         |            | Nil     |                     |        |           | Albumin                        |            | Nil            |                           |     |     |     |    |
| History<br><br>History of smoking present<br>History of allergy present |            | Sugar                           |            | Nil     |                     |        |           | Sugar                          |            | Nil            |                           |     |     |     |    |
|   |            | Deposits                        |            | NAD     |                     |        |           | Deposits                       |            | NAD            |                           |     |     |     |    |
|   |            | PEFR                            |            |         | 150 Lits/min        |        |           | PEFR                           |            |                | 230 Lits/min              |     |     |     |    |
|   |            | CHEST X – RAY                   |            |         | Bronchitis          |        |           | RESPONSE                       |            |                | Poor, No adverse effect.  |     |     |     |    |
|   |            | SPUTUM FOR AFB                  |            |         | Negative            |        |           |                                |            |                |                           |     |     |     |    |
| MANTOUX   |            |                                 | Negative   |         |                     |        |           |                                |            |                |                           |     |     |     |    |
| Days  |            | 1                               | 3          | 6       | 9                   | 12     | 15        | 18                             | 21         | 25             | 35                        | 45  |     |     |    |
| Cough   |            | P                               | P          | P       | R                   | R      | R         |                                |            |                |                           |     |     |     |    |
| Breathlessness  |            | ++                              | ++         | ++      | ++                  | +      | +         |                                |            |                |                           |     |     |     |    |
| Sputum  | Colour     | Y                               | Y          | Y       | Y                   | W      | W         |                                |            |                |                           |     |     |     |    |
|   | Quantity   | 6ml                             | 5ml        | 5ml     | 5ml                 | 2ml    | 2ml       |                                |            |                |                           |     |     |     |    |
| Rhonchi   |            | +++                             | +++        | +++     | ++                  | ++     | ++        |                                |            |                |                           |     |     |     |    |
| RR  |            | 32/min                          | 32/min     | 30/min  | 28/min              | 28/min | 22/min    |                                |            |                |                           |     |     |     |    |

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## IN-PATIENT

|   |              |   |             |                     |             |        |       |                                |      |                      |                          |             |  |        |  |    |  |    |  |    |  |    |  |
|---|--------------|---|-------------|---------------------|-------------|--------|-------|--------------------------------|------|----------------------|--------------------------|-------------|--|--------|--|----|--|----|--|----|--|----|--|
| 9. Name   | Shanmugammal | Age :   | 53          | Sex :               | F           | Ward : | PGII  | I.P.No :                       | 4463 | Occupation :         | Coolie                   |             |  |        |  |    |  |    |  |    |  |    |  |
| Date of Admission :   |              | 20.12.2012  |             | Date of Discharge : |             |        |       | 06.01.2013                     |      | No.of Days Treated : |                          | 17          |  |        |  |    |  |    |  |    |  |    |  |
| Drug :  |              | Karpoorasilasathu parpam 100mg bd a Day With Luck warm cow milk |             |                     |             |        |       | Diagnosis                      |      | Eraippu Erumal       |                          |             |  |        |  |    |  |    |  |    |  |    |  |
| Complaints & Duration   |              | Investigations Before Treatment                                 |             |                     |             |        |       | Investigations After Treatment |      |                      |                          |             |  |        |  |    |  |    |  |    |  |    |  |
| Cough without expectoration, difficulty in breathing tightness of chest since 6 months. |              | BLOOD   |             |                     |             |        |       | BLOOD                          |      |                      |                          |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | TC - 9100cells/cu.mm  |             |                     |             |        |       | TC 9200 Cells/cu.mm            |      |                      |                          |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | DC  | P - 66%     |                     | L - 29%     |        | E- 5% |                                | DC   | P - 66%              |                          | L - 33%     |  | E - 1% |  |    |  |    |  |    |  |    |  |
|   |              | ESR   | ½ hr - 10mm |                     | 1 hr - 20mm |        |       |                                | ESR  | ½ hr - 8mm           |                          | 1 hr - 16mm |  |        |  |    |  |    |  |    |  |    |  |
|   |              | Hb  |             | 60%                 |             |        |       |                                |      | Hb                   | 71%                      |             |  |        |  |    |  |    |  |    |  |    |  |
| Diet<br><br>Mixed diet  |              | Bl.Sugar(R)   |             | 94mgs%              |             |        |       | Bl.Sugar(R)                    |      | 92 mgs%              |                          |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | Bl. Urea  |             | 24mgs%              |             |        |       | Bl. Urea                       |      | 30 mgs%              |                          |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | Serum Cholesterol   |             |                     | 132 mgs%    |        |       | Serum Cholesterol              |      |                      | 150 mgs%                 |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | URINE   |             |                     |             |        |       | URINE                          |      |                      |                          |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | Albumin   |             | Nil                 |             |        |       | Albumin                        |      | Nil                  |                          |             |  |        |  |    |  |    |  |    |  |    |  |
| History<br><br>History of allergy present   |              | Sugar   |             | Nil                 |             |        |       | Sugar                          |      | Nil                  |                          |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | Deposits  |             | NAD                 |             |        |       | Deposits                       |      | NAD                  |                          |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | PEFR  |             |                     | 60 Lits/min |        |       | PEFR                           |      |                      | 160 Lits/min             |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | CHEST X – RAY   |             |                     | Normal      |        |       | RESPONSE                       |      |                      | Good, No adverse effect. |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              | SPUTUM FOR AFB  |             |                     | Negative    |        |       |                                |      |                      |                          |             |  |        |  |    |  |    |  |    |  |    |  |
| MANTOUX   |              | Negative  |             |                     |             |        |       |                                |      |                      |                          |             |  |        |  |    |  |    |  |    |  |    |  |
|   |              |   |             |                     |             |        |       |                                |      |                      |                          |             |  |        |  |    |  |    |  |    |  |    |  |
| Days  |              | 1   |             | 3                   |             | 6      |       | 9                              |      | 12                   |                          | 15          |  | 18     |  | 21 |  | 25 |  | 35 |  | 45 |  |
| Cough   |              | P   |             | P                   |             | P      |       | R                              |      | R                    |                          | A           |  |        |  |    |  |    |  |    |  |    |  |
| Breathlessness  |              | +++   |             | ++                  |             | ++     |       | +                              |      | +                    |                          | A           |  |        |  |    |  |    |  |    |  |    |  |
| Sputum  |              | Colour  |             | W                   |             | W      |       | W                              |      | W                    |                          | W           |  |        |  |    |  |    |  |    |  |    |  |
|   |              | Quantity  |             | 5ml                 |             | 10ml   |       | 10ml                           |      | 2ml                  |                          | 2ml         |  | A      |  |    |  |    |  |    |  |    |  |
| Rhonchi   |              |   |             | ++                  |             | ++     |       | ++                             |      | +                    |                          | +           |  | A      |  |    |  |    |  |    |  |    |  |
| RR  |              |   |             | 29/min              |             | 29/min |       | 28/min                         |      | 28/min               |                          | 22/min      |  | 20/min |  |    |  |    |  |    |  |    |  |

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## IN-PATIENT

|  |                 |  |  |                    |                            |                   |                   |                                       |               |                          |                             |           |  |    |  |
|--|-----------------|--|--|--------------------|----------------------------|-------------------|-------------------|---------------------------------------|---------------|--------------------------|-----------------------------|-----------|--|----|--|
| <b>10.Name</b>   | Senbagam        | <b>Age :</b>                           | 44   | <b>Sex :</b>       | F                          | <b>Ward :</b>     | PGII              | <b>I.P.No :</b>                       | 4511          | <b>Occupation :</b>      | Chemical company worker     |           |  |    |  |
| <b>Date of Admission :</b>   |                 |  | 22.12.2011   |                    | <b>Date of Discharge :</b> |                   |                   |                                       | 10.01.2013    |                          | <b>No.of Days Treated :</b> |           |  | 19 |  |
| <b>Drug :</b>  |                 |  | Karpoora silasathu parpam 100mg bd a Day With Luck warm cow milk |                    |                            |                   |                   | <b>Diagnosis</b>                      |               | Eraippu Erumal           |                             |           |  |    |  |
| <b>Complaints &amp; Duration</b>   |                 | <b>Investigations Before Treatment</b> |  |                    |                            |                   |                   | <b>Investigations After Treatment</b> |               |                          |                             |           |  |    |  |
| Cough without expectoration, sneezing difficulty in breathing tightness of chest since 9 months. |                 | <b>BLOOD</b>                           |  |                    |                            |                   |                   | <b>BLOOD</b>                          |               |                          |                             |           |  |    |  |
|  |                 | <b>TC</b> - 9400cells/cu.mm            |  |                    |                            |                   |                   | <b>TC</b> 9800 Cells/cu.mm            |               |                          |                             |           |  |    |  |
|  |                 | <b>DC</b>                              | <b>P</b> - 58%   | <b>L</b> - 28%     | <b>E</b> - 4%              | <b>DC</b>         | <b>P</b> - 62%    | <b>L</b> - 26%                        | <b>E</b> - 2% |                          |                             |           |  |    |  |
|  |                 | <b>ESR</b>                             | <b>½ hr</b> - 6mm  | <b>1 hr</b> - 12mm | <b>ESR</b>                 | <b>½ hr</b> - 4mm | <b>1 hr</b> - 8mm |                                       |               |                          |                             |           |  |    |  |
|  |                 | Hb                                     |  | 68%                |                            |                   |                   | Hb                                    |               | 71%                      |                             |           |  |    |  |
| <b>Diet</b><br><br>Mixed diet  |                 | Bl.Sugar(R)                            |  | 70mgs%             |                            |                   |                   | Bl.Sugar(R)                           |               | 90 mgs%                  |                             |           |  |    |  |
|  |                 | Bl. Urea                               |  | 15mgs%             |                            |                   |                   | Bl. Urea                              |               | 20 mgs%                  |                             |           |  |    |  |
|  |                 | Serum Cholesterol                      |  |                    | 175 mgs%                   |                   |                   | Serum Cholesterol                     |               | 175 mgs%                 |                             |           |  |    |  |
|  |                 | <b>URINE</b>                           |  |                    |                            |                   |                   | <b>URINE</b>                          |               |                          |                             |           |  |    |  |
|  |                 | Albumin                                |  | Nil                |                            |                   |                   | Albumin                               |               | Nil                      |                             |           |  |    |  |
| <b>History</b><br><br>History of allergy present   |                 | Sugar                                  |  | Nil                |                            |                   |                   | Sugar                                 |               | Nil                      |                             |           |  |    |  |
|  |                 | Deposits                               |  | NAD                |                            |                   |                   | Deposits                              |               | NAD                      |                             |           |  |    |  |
|  |                 | <b>PEFR</b>                            |  |                    | 210 Lits/min               |                   |                   | <b>PEFR</b>                           |               | 300 Lits/min             |                             |           |  |    |  |
|  |                 | <b>CHEST X – RAY</b>                   |  |                    | Normal                     |                   |                   | <b>RESPONSE</b>                       |               | Good, No adverse effect. |                             |           |  |    |  |
|  |                 | <b>SPUTUM FOR AFB</b>                  |  |                    | Negative                   |                   |                   |                                       |               |                          |                             |           |  |    |  |
| <b>MANTOUX</b>   |                 |  | Negative   |                    |                            |                   |                   |                                       |               |                          |                             |           |  |    |  |
| <b>Days</b>  |                 | <b>1</b>                               | <b>3</b>   | <b>6</b>           | <b>9</b>                   | <b>12</b>         | <b>15</b>         | <b>18</b>                             | <b>21</b>     | <b>25</b>                | <b>35</b>                   | <b>45</b> |  |    |  |
| <b>Cough</b>   |                 | P                                      | P  | P                  | R                          | R                 | R                 | A                                     |               |                          |                             |           |  |    |  |
| <b>Breathlessness</b>  |                 | +++                                    | +++  | ++                 | ++                         | +                 | +                 | A                                     |               |                          |                             |           |  |    |  |
| <b>Sputum</b>  | <b>Colour</b>   | W                                      | W  | W                  | W                          | W                 | W                 | A                                     |               |                          |                             |           |  |    |  |
|  | <b>Quantity</b> | 8ml                                    | 8ml  | 10ml               | 8ml                        | 5ml               | 2ml               | 1ml                                   |               |                          |                             |           |  |    |  |
| <b>Rhonchi</b>   |                 | ++                                     | ++   | ++                 | ++                         | +                 | +                 | +                                     |               |                          |                             |           |  |    |  |
| <b>RR</b>  |                 | 30/min                                 | 30/min   | 28/min             | 25/min                     | 25/min            | 20/min            | 18/min                                |               |                          |                             |           |  |    |  |

**P** – Present

**R** – Reduced

**A** – Absent

**W** – Whitish

**Y** Yellowish

**Good Response** : Significant amelioration of signs & symptoms

Mild +

Moderate ++

Severe +++

**Fair Response** : Partial amelioration of signs and symptoms

**Poor response** : In significant amelioration of signs and symptoms

## OUT-PATIENTS

|  |   |      |                |                 |                        |                  |              |             |                   |                       |                           |         |              |     |             |             |
|--|---|------|----------------|-----------------|------------------------|------------------|--------------|-------------|-------------------|-----------------------|---------------------------|---------|--------------|-----|-------------|-------------|
| 1. Name  | Krishnammal   |      |                | Age :           | 56                     | Sex :            | F            | O.P.No :    | 45637             | No. of Days Treated : | 32                        | From:   | 19.06.2012   | To: | 21.07..2012 |             |
| Drug :   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                |                 |                        |                  |              | Diagnosis : |                   |                       | Eraippu erumal            |         | Occupation : |     | Coolie      | mixed diet. |
| Complaints & Duration  | Respiratory System Examination                                    |      |                |                 |                        | Investigations   |              |             |                   |                       |                           |         |              |     |             |             |
|  | Before Treatment  |      |                | After Treatment |                        | Before Treatment |              |             |                   |                       | After Treatment           |         |              |     |             |             |
| Cough without expectoration, difficulty in breathing, tightness of chest since 1 year. History of similar complaints previously. | Cough   | P    | Cough          | A               | BLOOD                  |                  |              |             |                   | BLOOD                 |                           |         |              |     |             |             |
|  |   |      |                |                 | TC - 9000 cells / cumm |                  |              |             |                   | TC - 9200 Cells/cumm  |                           |         |              |     |             |             |
|  |   |      |                |                 | DC                     | P - 60%          | L- 32%       | E - 8%      |                   | DC                    | P - 66%                   | L - 32% | E - 1%       |     |             |             |
|  | Sputum  | W    | Sputum         | A               | ESR                    | ½ hr - 8mm       |              | 1 hr - 16mm |                   | ESR                   | ½ hr - 2mm                |         | 1 hr - 4mm   |     |             |             |
|  |   |      |                |                 | Hb                     |                  | 72%          |             | Hb                |                       | 72%                       |         |              |     |             |             |
|  |   |      |                |                 | Bl.Sugar (R)           |                  | 70 mgs%      |             | Bl.Sugar ( R )    |                       | 84 mgs%                   |         |              |     |             |             |
|  | Breathlessness  | P    | Breathlessness | A               | Bl. Urea               |                  | 15 mgs%      |             | Bl. Urea          |                       | 28 mgs%                   |         |              |     |             |             |
|  |   |      |                |                 | Serum Cholesterol      |                  | 175mgs%      |             | Serum Cholesterol |                       | 178 mgs%                  |         |              |     |             |             |
|  |   |      |                |                 | URINE                  |                  |              |             |                   | URINE                 |                           |         |              |     |             |             |
|  | Rhonchi   | P    | Rhonchi        | A               | Albumin                |                  | Nil          |             | Albumin           |                       | Nil                       |         |              |     |             |             |
|  |   |      |                |                 | Sugar                  |                  | Nil          |             | Sugar             |                       | Nil                       |         |              |     |             |             |
|  | RR  | 30/M | RR             | 19/M            | Deposits               |                  | NAD          |             | Deposits          |                       | NAD                       |         |              |     |             |             |
|  |   |      |                |                 | PEFR                   |                  | 200 lits/min |             | PEFR              |                       | 340 lits/min              |         |              |     |             |             |
|  |   |      |                |                 | CHEST X – RAY          |                  | Normal       |             | Response          |                       | Good, No adverse effects. |         |              |     |             |             |
| SPUTUM FOR AFB   |   |      |                |                 | Negative.              |                  |              |             |                   |                       |                           |         |              |     |             |             |
| MANTOUX  |   |      |                |                 | Negative.              |                  |              |             |                   |                       |                           |         |              |     |             |             |

|   |   |      |                 |      |                        |             |               |                           |                   |        |                      |       |                |                       |             |  |                     |                |
|---|---|------|-----------------|------|------------------------|-------------|---------------|---------------------------|-------------------|--------|----------------------|-------|----------------|-----------------------|-------------|--|---------------------|----------------|
| 2. Name   | Chandrabose   |      |                 |      | Age:                   | 53          |               | Sex :                     | M                 |        | O.P.No               | 48399 |                | No. of Days Treated : | 23          |  | From: 28.06.2012    | To: 21.07.2012 |
| Drug:   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |             |               |                           | Diagnosis :       |        |                      |       | Eraippu erumal |                       | Occupation: |  | Teacher mixed diet. |                |
| Complaints & Duration   | Respiratory System Examination                                    |      |                 |      | Investigations         |             |               |                           |                   |        |                      |       |                |                       |             |  |                     |                |
|   | Before Treatment  |      | After Treatment |      | Before Treatment       |             |               |                           |                   |        | After Treatment      |       |                |                       |             |  |                     |                |
| Cough without expectoration difficulty in breathing, tightness of chest since 6 months. History of similar complaints previously. | Cough   | P    | Cough           | A    | BLOOD                  |             |               |                           |                   |        | BLOOD                |       |                |                       |             |  |                     |                |
|   |   |      |                 |      | TC - 8700 cells / cumm |             |               |                           |                   |        | TC - 9000 Cells/cumm |       |                |                       |             |  |                     |                |
|   |   |      |                 |      | DC                     | P - 60%     |               | L - 32%                   |                   | E - 8% |                      | DC    | P - 68%        |                       | L - 31%     |  | E - 1%              |                |
|   | Sputum  | Y    | Sputum          | A    | ESR                    | ½ hr - 50mm |               | 1 hr - 10mm               |                   | ESR    | ½ hr - 4mm           |       | 1 hr - 8mm     |                       |             |  |                     |                |
|   |   |      |                 |      | Hb                     |             | 74%           |                           | Hb                |        | 78%                  |       |                |                       |             |  |                     |                |
|   |   |      |                 |      | Bl.Sugar (R)           |             | 85 mgs%       |                           | Bl.Sugar ( R)     |        | 90 mgs%              |       |                |                       |             |  |                     |                |
|   | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |             | 24mgs%        |                           | Bl. Urea          |        | 30 mgs%              |       |                |                       |             |  |                     |                |
|   |   |      |                 |      | Serum Cholesterol      |             | 251 mgs%      |                           | Serum Cholesterol |        | 270 mgs%             |       |                |                       |             |  |                     |                |
|   |   |      |                 |      | URINE                  |             |               |                           |                   |        | URINE                |       |                |                       |             |  |                     |                |
|   | Rhonchi   | P    | Rhonchi         | A    | Albumin                |             | Nil           |                           | Albumin           |        | Nil                  |       |                |                       |             |  |                     |                |
|   |   |      |                 |      | Sugar                  |             | Nil           |                           | Sugar             |        | Nil                  |       |                |                       |             |  |                     |                |
|   | RR  | 30/M | RR              | 19/M | Deposits               |             | Few pus cells |                           | Deposits          |        | NAD                  |       |                |                       |             |  |                     |                |
|   |   |      |                 |      | PEFR                   |             | 150lits/min   |                           | PEFR              |        | 280lits/min          |       |                |                       |             |  |                     |                |
| CHEST X – RAY   |   |      |                 |      | Bronchitis             |             | Response      | Good, No adverse effects. |                   |        |                      |       |                |                       |             |  |                     |                |
| SPUTUM FOR AFB  |   |      |                 |      | Negative               |             |               |                           |                   |        |                      |       |                |                       |             |  |                     |                |
| MANTOUX   |   |      |                 |      | Negative.              |             |               |                           |                   |        |                      |       |                |                       |             |  |                     |                |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms

## OUT-PATIENTS

|  |   |          |                |                 |                        |                  |              |             |                   |                |                      |                           |                       |              |                          |                  |                |
|--|---|----------|----------------|-----------------|------------------------|------------------|--------------|-------------|-------------------|----------------|----------------------|---------------------------|-----------------------|--------------|--------------------------|------------------|----------------|
| 3. Name  | Narayanan   |          |                | Age :           | 60                     |                  | Sex :        | M           |                   | O.P.No :       | 48476                |                           | No. of Days Treated : | 23           |                          | From: 28.06.2012 | To: 21.07.2012 |
| Drug :   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |          |                |                 |                        |                  |              |             | Diagnosis :       | Eraippu erumal |                      |                           |                       | Occupation : | Beedi worker mixed diet. |                  |                |
| Complaints & Duration  | Respiratory System Examination                                    |          |                |                 |                        | Investigations   |              |             |                   |                |                      |                           |                       |              |                          |                  |                |
|  | Before Treatment  |          |                | After Treatment |                        | Before Treatment |              |             |                   |                |                      | After Treatment           |                       |              |                          |                  |                |
| Cough without expectoration difficulty in breathing since 6 months<br><br>No related family history. | Cough   | P        | Cough          | A               | BLOOD                  |                  |              |             |                   |                | BLOOD                |                           |                       |              |                          |                  |                |
|  |   |          |                |                 | TC - 8500 cells / cumm |                  |              |             |                   |                | TC - 9400 Cells/cumm |                           |                       |              |                          |                  |                |
|  |   |          |                |                 | DC                     | P - 60%          | L- 36%       | E - 4%      |                   | DC             | P - 65%              | L - 34%                   | E - 1%                |              |                          |                  |                |
|  | Sputum  | W        | Sputum         | W               | ESR                    | ½ hr - 8mm       |              | 1 hr - 15mm |                   | ESR            | ½ hr - 4mm           |                           | 1 hr - 8mm            |              |                          |                  |                |
|  |   |          |                |                 | Hb                     |                  | 68%          |             | Hb                |                | 72%                  |                           |                       |              |                          |                  |                |
|  |   |          |                |                 | Bl.Sugar (R)           |                  | 98 mgs%      |             | Bl.Sugar ( R )    |                | 119 mgs%             |                           |                       |              |                          |                  |                |
|  | Breathlessness  | P        | Breathlessness | A               | Bl. Urea               |                  | 13 mgs%      |             | Bl. Urea          |                | 35mgs%               |                           |                       |              |                          |                  |                |
|  |   |          |                |                 | Serum Cholesterol      |                  | 215 mgs%     |             | Serum Cholesterol |                | 230 mgs%             |                           |                       |              |                          |                  |                |
|  |   |          |                |                 | URINE                  |                  |              |             |                   |                | URINE                |                           |                       |              |                          |                  |                |
|  | Rhonchi   | P        | Rhonchi        | A               | Albumin                |                  | Nil          |             |                   |                | Albumin              |                           | Nil                   |              |                          |                  |                |
|  |   |          |                |                 | Sugar                  |                  | Nil          |             |                   |                | Sugar                |                           | Nil                   |              |                          |                  |                |
|  | RR  | 30/M     | RR             | 20/M            | Deposits               |                  | NAD          |             |                   |                | Deposits             |                           | NAD                   |              |                          |                  |                |
|  |   |          |                |                 | PEFR                   |                  | 210 lits/min |             |                   |                | PEFR                 |                           | 340 lits/min          |              |                          |                  |                |
|  |   |          |                |                 | CHEST X – RAY          |                  | Normal       |             |                   |                | Response             | Good, No adverse effects. |                       |              |                          |                  |                |
| SPUTUM FOR AFB   |   |          |                |                 | Negative               |                  |              |             |                   |                |                      |                           |                       |              |                          |                  |                |
| MANTOUX  |   | Negative |                |                 |                        |                  |              |             |                   |                |                      |                           |                       |              |                          |                  |                |

|   |   |      |                 |      |                        |            |              |            |                       |                           |                 |                        |            |  |
|---|---|------|-----------------|------|------------------------|------------|--------------|------------|-----------------------|---------------------------|-----------------|------------------------|------------|--|
| 4. Name   | Sevi  |      | Age:            | 42   | Sex :                  | F          | O.P.No       | 50645      | No. of Days Treated : | 21                        | From:05.07.2012 | To: 26.07.2012         |            |  |
| Drug:   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |            | Diagnosis :  |            |                       | Eraippu erumal            | Occupation:     | House wife mixed diet. |            |  |
| Complaints & Duration   | Respiratory System Examination                                    |      |                 |      | Investigations         |            |              |            |                       |                           |                 |                        |            |  |
|   | Before Treatment  |      | After Treatment |      | Before Treatment       |            |              |            | After Treatment       |                           |                 |                        |            |  |
| Cough without expectoration, difficulty in breathing, tightness of chest, sleeplessness since 3 months. | Cough   | P    | Cough           | A    | BLOOD                  |            |              |            | BLOOD                 |                           |                 |                        |            |  |
|   |   |      |                 |      | TC - 9100 cells / cumm |            |              |            | TC - 9400 Cells/cumm  |                           |                 |                        |            |  |
|   |   |      |                 |      | DC                     | P - 54%    | L - 38%      | E - 8%     | DC                    | P - 65%                   | L - 34%         | E - 1%                 |            |  |
|   | Sputum  | W    | Sputum          | A    | ESR                    | ½ hr - 2mm |              | 1 hr - 5mm |                       | ESR                       | ½ hr - 4mm      |                        | 1 hr - 8mm |  |
|   |   |      |                 |      | Hb                     |            | 78%          |            | Hb                    |                           | 74%             |                        |            |  |
|   |   |      |                 |      | Bl.Sugar (R)           |            | 72 mgs%      |            | Bl.Sugar ( R )        |                           | 125 mgs%        |                        |            |  |
|   | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |            | 97 mgs%      |            | Bl. Urea              |                           | 20 mgs%         |                        |            |  |
|   |   |      |                 |      | Serum Cholesterol      |            | 150mgs%      |            | Serum Cholesterol     |                           | 150 mgs%        |                        |            |  |
|   |   |      |                 |      | URINE                  |            |              |            | URINE                 |                           |                 |                        |            |  |
|   | Rhonchi   | P    | Rhonchi         | A    | Albumin                |            | Nil          |            | Albumin               |                           | Nil             |                        |            |  |
|   |   |      |                 |      | Sugar                  |            | Nil          |            | Sugar                 |                           | Nil             |                        |            |  |
|   | RR  | 29/M | RR              | 18/M | Deposits               |            | NAD          |            | Deposits              |                           | NAD             |                        |            |  |
|   |   |      |                 |      | PEFR                   |            | 160 lits/min |            | PEFR                  |                           | 310 lits/min    |                        |            |  |
|   |   |      |                 |      | CHEST X – RAY          |            | Normal       |            | Response              | Good, No adverse effects. |                 |                        |            |  |
|   |   |      |                 |      | SPUTUM FOR AFB         |            | Negative     |            |                       |                           |                 |                        |            |  |
|   |   |      |                 |      | MANTOUX                |            | Negative     |            |                       |                           |                 |                        |            |  |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms

## OUT-PATIENTS

|   |   |          |                 |      |                        |            |               |                           |                   |                      |              |         |                |                       |              |  |                  |                |
|---|---|----------|-----------------|------|------------------------|------------|---------------|---------------------------|-------------------|----------------------|--------------|---------|----------------|-----------------------|--------------|--|------------------|----------------|
| 5. Name   | Sankara narayanan   |          |                 |      | Age :                  | 58         |               | Sex :                     | Fm                |                      | O.P.No :     | 54569   |                | No. of Days Treated : | 18           |  | From: 19.07.2012 | To: 07.08.2012 |
| Drug :  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |          |                 |      |                        |            |               |                           | Diagnosis :       |                      |              |         | Eraippu erumal |                       | Occupation : |  | Coolie           | mixed diet.    |
| Complaints & Duration                                       | Respiratory System Examination                                    |          |                 |      | Investigations         |            |               |                           |                   |                      |              |         |                |                       |              |  |                  |                |
|   | Before Treatment  |          | After Treatment |      | Before Treatment       |            |               |                           |                   | After Treatment      |              |         |                |                       |              |  |                  |                |
| Difficulty in breathing, tightness of chest since 6 months. | Cough   | P        | Cough           | R    | BLOOD                  |            |               |                           |                   | BLOOD                |              |         |                |                       |              |  |                  |                |
|   |   |          |                 |      | TC - 9900 cells / cumm |            |               |                           |                   | TC - 9600 Cells/cumm |              |         |                |                       |              |  |                  |                |
|   |   |          |                 |      | DC                     | P - 65%    | L- 30%        | E - 5%                    |                   | DC                   | P - 64%      | L - 32% | E - 4%         |                       |              |  |                  |                |
|   | Sputum  | W        | Sputum          | W    | ESR                    | ½ hr - 3mm |               | 1 hr - 7mm                |                   | ESR                  | ½ hr - 2mm   |         | 1 hr - 4mm     |                       |              |  |                  |                |
|   |   |          |                 |      | Hb                     |            | 72%           |                           | Hb                |                      | 78%          |         |                |                       |              |  |                  |                |
|   |   |          |                 |      | Bl.Sugar (R)           |            | 87mgs%        |                           | Bl.Sugar ( R )    |                      | 78 mgs%      |         |                |                       |              |  |                  |                |
|   | Breathlessness  | P        | Breathlessness  | R    | Bl. Urea               |            | 16 mgs%       |                           | Bl. Urea          |                      | 21 mgs%      |         |                |                       |              |  |                  |                |
|   |   |          |                 |      | Serum Cholesterol      |            | 200 mgs%      |                           | Serum Cholesterol |                      | 180 mgs%     |         |                |                       |              |  |                  |                |
|   |   |          |                 |      | URINE                  |            |               |                           |                   | URINE                |              |         |                |                       |              |  |                  |                |
|   | Rhonchi   | P        | Rhonchi         | A    | Albumin                |            | Nil           |                           | Albumin           |                      | Nil          |         |                |                       |              |  |                  |                |
|   |   |          |                 |      | Sugar                  |            | Nil           |                           | Sugar             |                      | Nil          |         |                |                       |              |  |                  |                |
|   | RR  | 28/M     | RR              | 22/M | Deposits               |            | Occ pus cells |                           | Deposits          |                      | NAD          |         |                |                       |              |  |                  |                |
|   |   |          |                 |      | PEFR                   |            | 210lits/min   |                           | PEFR              |                      | 300 lits/min |         |                |                       |              |  |                  |                |
| CHEST X – RAY   |   |          |                 |      | Normal                 |            | Response      | Fair, No adverse effects. |                   |                      |              |         |                |                       |              |  |                  |                |
| SPUTUM FOR AFB  |   |          |                 |      | Negative               |            |               |                           |                   |                      |              |         |                |                       |              |  |                  |                |
| MANTOUX   |   | negative |                 |      |                        |            |               |                           |                   |                      |              |         |                |                       |              |  |                  |                |

|  |   |      |                 |      |                        |             |              |             |                      |                           |                |                 |                    |  |
|--|---|------|-----------------|------|------------------------|-------------|--------------|-------------|----------------------|---------------------------|----------------|-----------------|--------------------|--|
| 6. Name  | Ganapatthy  |      |                 | Age: | 60                     | Sex :       | M            | O.P.No      | 58633                | No. of Days Treated :     | 21             | From:02.08.2012 | To: 23.08.2012     |  |
| Drug:  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |             |              | Diagnosis : |                      |                           | Eraippu erumal | Occupation:     | Coolie mixed diet. |  |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |      | Investigations         |             |              |             |                      |                           |                |                 |                    |  |
|  | Before Treatment  |      | After Treatment |      | Before Treatment       |             |              |             | After Treatment      |                           |                |                 |                    |  |
| Cough sneezing, allergic thiritis , breathlessness, tightness of chest since 5 years<br>History of allergy present | Cough   | P    | Cough           | A    | BLOOD                  |             |              |             | BLOOD                |                           |                |                 |                    |  |
|  |   |      |                 |      | TC - 9900 cells / cumm |             |              |             | TC - 9800 Cells/cumm |                           |                |                 |                    |  |
|  |   |      |                 |      | DC                     | P - 65%     | L - 32%      | E - 3%      | DC                   | P - 64%                   | L - 35%        | E - 1%          |                    |  |
|  | Sputum  | W    | Sputum          | A    | ESR                    | ½ hr - 10mm |              | 1 hr - 15mm |                      | ESR                       | ½ hr - 5mm     |                 | 1 hr - 10mm        |  |
|  |   |      |                 |      | Hb                     |             | 74%          |             | Hb                   |                           | 77%            |                 |                    |  |
|  |   |      |                 |      | Bl.Sugar (R)           |             | 87 mgs%      |             | Bl.Sugar ( R )       |                           | 85 mgs%        |                 |                    |  |
|  | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |             | 14 mgs%      |             | Bl. Urea             |                           | 29 mgs%        |                 |                    |  |
|  |   |      |                 |      | Serum Cholesterol      |             | 270 mgs%     |             | Serum Cholesterol    |                           | 275 mgs%       |                 |                    |  |
|  |   |      |                 |      | URINE                  |             |              |             | URINE                |                           |                |                 |                    |  |
|  | Rhonchi   | P    | Rhonchi         | A    | Albumin                |             | Nil          |             | Albumin              |                           | Nil            |                 |                    |  |
|  |   |      |                 |      | Sugar                  |             | Nil          |             | Sugar                |                           | Nil            |                 |                    |  |
|  | RR  | 29/M | RR              | 20/M | Deposits               |             | NAD          |             | Deposits             |                           | NAD            |                 |                    |  |
|  |   |      |                 |      | PEFR                   |             | 100 lits/min |             | PEFR                 |                           | 280 lits/min   |                 |                    |  |
|  |   |      |                 |      | CHEST X – RAY          |             | Normal       |             | Response             | Good, No adverse effects. |                |                 |                    |  |
|  |   |      |                 |      | SPUTUM FOR AFB         |             | Negative     |             |                      |                           |                |                 |                    |  |
| MANTOUX  |   |      |                 |      | Negative               |             |              |             |                      |                           |                |                 |                    |  |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms

## OUT-PATIENTS

|   |   |          |                 |       |                        |            |          |                           |                      |                       |              |                          |                |  |
|---|---|----------|-----------------|-------|------------------------|------------|----------|---------------------------|----------------------|-----------------------|--------------|--------------------------|----------------|--|
| 7. Name   | Pushpa rani   |          |                 | Age : | 53                     | Sex :      | F        | O.P.No :                  | 58626                | No. of Days Treated : | 21           | From: 02.08.2012         | To: 23.08.2012 |  |
| Drug :  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |          |                 |       |                        |            |          | Diagnosis :               | Eraippu erumal       |                       | Occupation : | Beedi worker mixed diet. |                |  |
| Complaints & Duration   | Respiratory System Examination                                    |          |                 |       | Investigations         |            |          |                           |                      |                       |              |                          |                |  |
|   | Before Treatment  |          | After Treatment |       | Before Treatment       |            |          |                           | After Treatment      |                       |              |                          |                |  |
| Difficulty in breathing,<br>Cough without expectoration,<br>breathlessness, tightness of chest, sleeplessness since1 ½ years. | Cough   | P        | Cough           | A     | BLOOD                  |            |          |                           | BLOOD                |                       |              |                          |                |  |
|   |   |          |                 |       | TC - 9800 cells / cumm |            |          |                           | TC - 9900 Cells/cumm |                       |              |                          |                |  |
|   |   |          |                 |       | DC                     | P - 60%    | L- 38%   | E - 2%                    | DC                   | P - 58%               | L - 4%       | E - 1%                   |                |  |
|   | Sputum  | W        | Sputum          | A     | ESR                    | ½ hr - 3mm |          | 1 hr - 6mm                |                      | ESR                   | ½ hr - 2mm   |                          | 1 hr - 4mm     |  |
|   |   |          |                 |       | Hb                     |            | 68%      |                           | Hb                   |                       | 70%          |                          |                |  |
|   |   |          |                 |       | Bl.Sugar (R)           |            | 118 mgs% |                           | Bl.Sugar ( R )       |                       | 115 mgs%     |                          |                |  |
|   | Breathlessness  | P        | Breathlessness  | A     | Bl. Urea               |            | 16 mgs%  |                           | Bl. Urea             |                       | 20 mgs%      |                          |                |  |
|   |   |          |                 |       | Serum Cholesterol      |            | 170 mgs% |                           | Serum Cholesterol    |                       | 175 mgs%     |                          |                |  |
|   |   |          |                 |       | URINE                  |            |          |                           | URINE                |                       |              |                          |                |  |
|   | Rhonchi   | P        | Rhonchi         | A     | Albumin                |            | Nil      |                           | Albumin              |                       | Nil          |                          |                |  |
|   |   |          |                 |       | Sugar                  |            | Nil      |                           | Sugar                |                       | Nil          |                          |                |  |
|   | RR  | 30/M     | RR              | 19/M  | Deposits               |            | NAD      |                           | Deposits             |                       | NAD          |                          |                |  |
| PEFR  |   |          |                 |       | 240 lits/min           |            | PEFR     |                           | 340 lits/min         |                       |              |                          |                |  |
| CHEST X – RAY   |   |          |                 |       | Normal                 |            | Response | Good, No adverse effects. |                      |                       |              |                          |                |  |
| SPUTUM FOR AFB  |   |          |                 |       | Negative               |            |          |                           |                      |                       |              |                          |                |  |
| MANTOUX   |   | Negative |                 |       |                        |            |          |                           |                      |                       |              |                          |                |  |

|  |   |      |                 |      |                        |            |          |                           |              |                       |                |                  |                |             |
|--|---|------|-----------------|------|------------------------|------------|----------|---------------------------|--------------|-----------------------|----------------|------------------|----------------|-------------|
| 8. Name  | Subramanian   |      |                 | Age: | 31                     | Sex :      | M        | O.P.No                    | 58989        | No. of Days Treated : | 20             | From: 03.08.2012 | To: 23.08.2012 |             |
| Drug:  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |            |          | Diagnosis :               |              |                       | Eraippu erumal | Occupation:      | Driver         | mixed diet. |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |      | Investigations         |            |          |                           |              |                       |                |                  |                |             |
|  | Before Treatment  |      | After Treatment |      | Before Treatment       |            |          |                           |              | After Treatment       |                |                  |                |             |
| Difficulty in breathing<br>Cough without expectoration, since 2 years.<br>Related family history | Cough   | P    | Cough           | R    | BLOOD                  |            |          |                           |              | BLOOD                 |                |                  |                |             |
|  |   |      |                 |      | TC - 9700 cells / cumm |            |          |                           |              | TC - 9900 Cells/cumm  |                |                  |                |             |
|  |   |      |                 |      | DC                     | P - 62%    | L - 34%  | E - 4%                    | DC           | P - 63%               | L - 35%        | E - 4%           |                |             |
|  | Sputum  | W    | Sputum          | W    | ESR                    | ½ hr - 5mm |          | 1 hr - 11mm               |              | ESR                   | ½ hr - 4mm     |                  | 1 hr - 10mm    |             |
|  |   |      |                 |      | Hb                     |            | 76%      |                           |              | Hb                    |                | 74%              |                |             |
|  |   |      |                 |      | Bl.Sugar (R)           |            | 85mgs%   |                           |              | Bl.Sugar ( R )        |                | 90 mgs%          |                |             |
|  | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |            | 19mgs%   |                           |              | Bl. Urea              |                | 20 mgs%          |                |             |
|  |   |      |                 |      | Serum Cholesterol      |            | 182 mgs% |                           |              | Serum Cholesterol     |                | 200 mgs%         |                |             |
|  |   |      |                 |      | URINE                  |            |          |                           |              | URINE                 |                |                  |                |             |
|  | Rhonchi   | P    | Rhonchi         | R    | Albumin                |            | Nil      |                           |              | Albumin               |                | Nil              |                |             |
|  |   |      |                 |      | Sugar                  |            | Nil      |                           |              | Sugar                 |                | Nil              |                |             |
|  | RR  | 28/M | RR              | 19/M | Deposits               |            | NAD      |                           |              | Deposits              |                | NAD              |                |             |
| PEFR   |   |      |                 |      | 60 lits/min            |            | PEFR     |                           | 290 lits/min |                       |                |                  |                |             |
| CHEST X – RAY  |   |      |                 |      | Bronchitis             |            | Response | Fair, No adverse effects. |              |                       |                |                  |                |             |
| SPUTUM FOR AFB   |   |      |                 |      | Negative               |            |          |                           |              |                       |                |                  |                |             |
| MANTOUX  |   |      | Negative        |      |                        |            |          |                           |              |                       |                |                  |                |             |

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## OUT-PATIENTS

|  |   |          |                 |       |                        |             |                |                       |                      |                           |                |        |            |  |
|--|---|----------|-----------------|-------|------------------------|-------------|----------------|-----------------------|----------------------|---------------------------|----------------|--------|------------|--|
| 9. Name  | Mathiarasan   | Age :    | 35              | Sex : | M                      | O.P.No :    | 61270          | No. of Days Treated : | 23                   | From:10.08.2012           | To: 02.09.2012 |        |            |  |
| Drug :   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |          |                 |       |                        | Diagnosis : | Eraippu erumal |                       | Occupation :         | Driver                    | mixed diet.    |        |            |  |
| Complaints & Duration  | Respiratory System Examination                                    |          |                 |       | Investigations         |             |                |                       |                      |                           |                |        |            |  |
|  | Before Treatment  |          | After Treatment |       | Before Treatment       |             |                |                       | After Treatment      |                           |                |        |            |  |
| Difficulty in breathing, Cough without expectoration, tightness of chest since 1 year.<br><br>History of similar complaints previously | Cough   | P        | Cough           | R     | BLOOD                  |             |                |                       | BLOOD                |                           |                |        |            |  |
|  |   |          |                 |       | TC - 9300 cells / cumm |             |                |                       | TC - 9400 Cells/cumm |                           |                |        |            |  |
|  |   |          |                 |       | DC                     | P - 65%     | L- 30%         | E - 5%                | DC                   | P - 65%                   | L - 34%        | E - 1% |            |  |
|  | Sputum  | W        | Sputum          | A     | ESR                    | ½ hr - 6mm  |                | 1 hr - 12mm           |                      | ESR                       | ½ hr - 2mm     |        | 1 hr - 5mm |  |
|  |   |          |                 |       | Hb                     |             | 73%            |                       | Hb                   |                           | 80%            |        |            |  |
|  |   |          |                 |       | Bl.Sugar (R)           |             | 90 mgs%        |                       | Bl.Sugar ( R )       |                           | 100 mgs%       |        |            |  |
|  | Breathlessness  | P        | Breathlessness  | R     | Bl. Urea               |             | 15 mgs%        |                       | Bl. Urea             |                           | 20 mgs%        |        |            |  |
|  |   |          |                 |       | Serum Cholesterol      |             | 213 mgs%       |                       | Serum Cholesterol    |                           | 320 mgs%       |        |            |  |
|  |   |          |                 |       | URINE                  |             |                |                       | URINE                |                           |                |        |            |  |
|  | Rhonchi   | P        | Rhonchi         | A     | Albumin                |             | Nil            |                       | Albumin              |                           | Nil            |        |            |  |
|  |   |          |                 |       | Sugar                  |             | Nil            |                       | Sugar                |                           | Nil            |        |            |  |
|  | RR  | 25/M     | RR              | 20/M  | Deposits               |             | NAD            |                       | Deposits             |                           | NAD            |        |            |  |
|  |   |          |                 |       | PEFR                   |             | 90 lits/min    |                       | PEFR                 |                           | 350 lits/min   |        |            |  |
|  |   |          |                 |       | CHEST X – RAY          |             | Normal         |                       | Response             | Good, No adverse effects. |                |        |            |  |
| SPUTUM FOR AFB   |   |          |                 |       | Negative               |             |                |                       |                      |                           |                |        |            |  |
| MANTOUX  |   | Negative |                 |       |                        |             |                |                       |                      |                           |                |        |            |  |

|   |   |          |                 |       |                        |             |                      |                           |                      |                  |                     |             |
|---|---|----------|-----------------|-------|------------------------|-------------|----------------------|---------------------------|----------------------|------------------|---------------------|-------------|
| 10. Name  | Senthilkumar  | Age:     | 30              | Sex : | M                      | O.P.No      | 61274                | No. of Days Treated :     | 23                   | From: 10.08.2012 | To: 02.09.2012      |             |
| Drug:   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |          |                 |       |                        | Diagnosis : |                      |                           | Eraippu erumal       | Occupation:      | Coolie. mixed diet. |             |
| Complaints & Duration   | Respiratory System Examination                                    |          |                 |       | Investigations         |             |                      |                           |                      |                  |                     |             |
|   | Before Treatment  |          | After Treatment |       | Before Treatment       |             |                      |                           | After Treatment      |                  |                     |             |
| Difficulty in breathing,<br>Cough without expectoration, headache since 6 months. | Cough   | P        | Cough           | R     | BLOOD                  |             |                      |                           | BLOOD                |                  |                     |             |
|   |   |          |                 |       | TC - 9000 cells / cumm |             |                      |                           | TC - 9400 Cells/cumm |                  |                     |             |
|   |   |          |                 |       | DC                     | P - 69%     | L - 30%              | E - 5%                    | DC                   | P - 68%          | L - 30%             | E - 2%      |
|   | Sputum  | W        | Sputum          | W     | ESR                    | ½ hr - 8mm  |                      | 1 hr - 15mm               | ESR                  | ½ hr - 15mm      |                     | 1 hr - 18mm |
|   |   |          |                 |       | Hb                     |             | 70%                  | Hb                        |                      | 72%              |                     |             |
|   |   |          |                 |       | Bl.Sugar (R)           |             | 84 mgs%              | Bl.Sugar ( R )            |                      | 90 mgs%          |                     |             |
|   | Breathlessness  | P        | Breathlessness  | R     | Bl. Urea               |             | 20 mgs%              | Bl. Urea                  |                      | 20 mgs%          |                     |             |
|   |   |          |                 |       | Serum Cholesterol      |             | 148mgs%              | Serum Cholesterol         |                      | 205mgs%          |                     |             |
|   |   |          |                 |       | URINE                  |             |                      |                           | URINE                |                  |                     |             |
|   | Rhonchi   | P        | Rhonchi         | R     | Albumin                |             | Nil                  | Albumin                   |                      | Nil              |                     |             |
|   |   |          |                 |       | Sugar                  |             | Nil                  | Sugar                     |                      | Nil              |                     |             |
|   | RR  | 24/M     | RR              | 18/M  | Deposits               |             | Few epithelial cells |                           | Deposits             |                  | NAD                 |             |
| PEFR  |   |          |                 |       | 120 lits/min           |             | PEFR                 |                           | 210 lits/min         |                  |                     |             |
| CHEST X – RAY   |   |          |                 |       | Ch. Bronchitis         |             | Response             | Poor, No adverse effects. |                      |                  |                     |             |
| SPUTUM FOR AFB  |   |          |                 |       | Negative               |             |                      |                           |                      |                  |                     |             |
| MANTOUX   |   | negative |                 |       |                        |             |                      |                           |                      |                  |                     |             |

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## OUT-PATIENTS

|  |   |          |                 |       |                        |             |                         |                       |                           |                  |                |            |
|--|---|----------|-----------------|-------|------------------------|-------------|-------------------------|-----------------------|---------------------------|------------------|----------------|------------|
| 11.Name  | Selvi   | Age :    | 38              | Sex : | F                      | O.P.No :    | 66129                   | No. of Days Treated : | 20                        | From: 27.08.2012 | To: 16.09.2012 |            |
| Drug :   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |          |                 |       |                        | Diagnosis : | Eraippu erumal          |                       | Occupation :              | House wife       | mixed diet.    |            |
| Complaints & Duration  | Respiratory System Examination                                    |          |                 |       | Investigations         |             |                         |                       |                           |                  |                |            |
|  | Before Treatment  |          | After Treatment |       | Before Treatment       |             |                         |                       | After Treatment           |                  |                |            |
| Cough expectoration<br>tightness of chest, difficult<br>in breathing since 6months<br><br>Related family present | Cough   | P        | Cough           | A     | BLOOD                  |             |                         |                       | BLOOD                     |                  |                |            |
|  |   |          |                 |       | TC - 9000 cells / cumm |             |                         |                       | TC - 8600 Cells/cumm      |                  |                |            |
|  |   |          |                 |       | DC                     | P - 42%     | L- 50%                  | E - 8%                | DC                        | P - 65%          | L - 33%        | E - 2%     |
|  | Sputum  | W        | Sputum          | W     | ESR                    | ½ hr - 2mm  |                         | 1 hr - 5mm            | ESR                       | ½ hr - 2mm       |                | 1 hr - 6mm |
|  |   |          |                 |       | Hb                     |             | 68%                     | Hb                    |                           | 71%              |                |            |
|  |   |          |                 |       | Bl.Sugar (R)           |             | 69mgs%                  | Bl.Sugar ( R )        |                           | 83 mgs%          |                |            |
|  | Breathlessness  | P        | Breathlessness  | A     | Bl. Urea               |             | 14 mgs%                 | Bl. Urea              |                           | 25 mgs%          |                |            |
|  |   |          |                 |       | Serum Cholesterol      |             | 140 mgs%                | Serum Cholesterol     |                           | 158 mgs%         |                |            |
|  |   |          |                 |       | URINE                  |             |                         |                       | URINE                     |                  |                |            |
|  | Rhonchi   | P        | Rhonchi         | A     | Albumin                |             | Nil                     | Albumin               |                           | Nil              |                |            |
|  |   |          |                 |       | Sugar                  |             | Nil                     | Sugar                 |                           | Nil              |                |            |
|  | RR  | 24/M     | RR              | 19/M  | Deposits               |             | 1 to 2 epithelial cells | Deposits              |                           | NAD              |                |            |
|  |   |          |                 |       | PEFR                   |             | 180 lits/min            | PEFR                  |                           | 300 lits/min     |                |            |
|  |   |          |                 |       | CHEST X – RAY          |             | Normal                  | Response              | Fair, No adverse effects. |                  |                |            |
| SPUTUM FOR AFB   |   |          |                 |       | Negative               |             |                         |                       |                           |                  |                |            |
| MANTOUX  |   | negative |                 |       |                        |             |                         |                       |                           |                  |                |            |

|   |   |      |                 |       |                        |             |             |                       |                      |                           |                |             |             |  |
|---|---|------|-----------------|-------|------------------------|-------------|-------------|-----------------------|----------------------|---------------------------|----------------|-------------|-------------|--|
| 12. Name  | Sundaram  | Age: | 60              | Sex : | M                      | O.P.No      | 68547       | No. of Days Treated : | 21                   | From:04.09.2012           | To: 25.09.2012 |             |             |  |
| Drug:   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |       |                        | Diagnosis : |             |                       | Eraippu erumal       | Occupation:               | Coolie         | mixed diet. |             |  |
| Complaints & Duration   | Respiratory System Examination                                    |      |                 |       | Investigations         |             |             |                       |                      |                           |                |             |             |  |
|   | Before Treatment  |      | After Treatment |       | Before Treatment       |             |             |                       | After Treatment      |                           |                |             |             |  |
| Difficulty Cough without expectoration tightness of chest, breathing since 15 years<br>History of smoking | Cough   | P    | Cough           | A     | BLOOD                  |             |             |                       | BLOOD                |                           |                |             |             |  |
|   |   |      |                 |       | TC - 9300 cells / cumm |             |             |                       | TC - 9400 Cells/cumm |                           |                |             |             |  |
|   |   |      |                 |       | DC                     | P - 66%     | L - 30%     | E - 4%                | DC                   | P - 64%                   | L - 36%        | E - 4%      |             |  |
|   | Sputum  | W    | Sputum          | A     | ESR                    | ½ hr - 15mm |             | 1 hr - 30mm           |                      | ESR                       | ½ hr - 14mm    |             | 1 hr - 25mm |  |
|   |   |      |                 |       | Hb                     |             | 78%         |                       | Hb                   |                           | 78%            |             |             |  |
|   |   |      |                 |       | Bl.Sugar (R)           |             | 80mgs%      |                       | Bl.Sugar ( R )       |                           | 78mgs%         |             |             |  |
|   | Breathlessness  | P    | Breathlessness  | R     | Bl. Urea               |             | 22 mgs%     |                       | Bl. Urea             |                           | 21 mgs%        |             |             |  |
|   |   |      |                 |       | Serum Cholesterol      |             | 186 mgs%    |                       | Serum Cholesterol    |                           | 190 mgs%       |             |             |  |
|   |   |      |                 |       | URINE                  |             |             |                       | URINE                |                           |                |             |             |  |
|   | Rhonchi   | P    | Rhonchi         | R     | Albumin                |             | Nil         |                       | Albumin              |                           | Nil            |             |             |  |
|   |   |      |                 |       | Sugar                  |             | Nil         |                       | Sugar                |                           | Nil            |             |             |  |
|   | RR  | 29/M | RR              | 19/M  | Deposits               |             | NAD         |                       | Deposits             |                           | NAD            |             |             |  |
|   |   |      |                 |       | PEFR                   |             | 70 lits/min |                       | PEFR                 |                           | 140 lits/min   |             |             |  |
|   |   |      |                 |       | CHEST X – RAY          |             | Normal      |                       | Response             | Fair, No adverse effects. |                |             |             |  |
|   |   |      |                 |       | SPUTUM FOR AFB         |             | Negative    |                       |                      |                           |                |             |             |  |
| MANTOUX   |   |      |                 |       | negative               |             |             |                       |                      |                           |                |             |             |  |

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## OUT-PATIENTS

|  |                                |      |                 |   |                        |            |               |             |       |                       |                |                           |                |            |             |
|--|--------------------------------|------|-----------------|---|------------------------|------------|---------------|-------------|-------|-----------------------|----------------|---------------------------|----------------|------------|-------------|
| 13. Name   | Pappammal                      |      |                 | Age :   | 58                     | Sex :      | F             | O.P.No :    | 68955 | No. of Days Treated : | 20             | From: 05.09.2012          | To: 25.09.2012 |            |             |
| Drug :   |                                |      |                 | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |                        |            |               | Diagnosis : |       |                       | Eraippu erumal |                           | Occupation :   | House wife | mixed diet. |
| Complaints & Duration  | Respiratory System Examination |      |                 |   | Investigations         |            |               |             |       |                       |                |                           |                |            |             |
|  | Before Treatment               |      | After Treatment |   | Before Treatment       |            |               |             |       | After Treatment       |                |                           |                |            |             |
| Difficulty in breathing<br>Cough without expectoration, tightness of chest since 2 years | Cough                          | P    | Cough           | R   | BLOOD                  |            |               |             |       | BLOOD                 |                |                           |                |            |             |
|  |                                |      |                 |   | TC - 8700 cells / cumm |            |               |             |       | TC - 8800 Cells/cumm  |                |                           |                |            |             |
|  |                                |      |                 |   | DC                     | P - 58%    | L- 37%        | E - 5%      |       | DC                    | P - 63%        | L - 35%                   | E - 2%         |            |             |
|  | Sputum                         | W    | Sputum          | A   | ESR                    | ½ hr - 6mm |               | 1 hr - 13mm |       | ESR                   | ½ hr - 3mm     |                           | 1 hr - 6mm     |            |             |
|  |                                |      |                 |   | Hb                     |            | 74%           |             |       | Hb                    |                | 80%                       |                |            |             |
|  |                                |      |                 |   | Bl.Sugar (R)           |            | 110 mgs%      |             |       | Bl.Sugar ( R )        |                | 90 mgs%                   |                |            |             |
|  | Breathlessness                 | P    | Breathlessness  | A   | Bl. Urea               |            | 17 mgs%       |             |       | Bl. Urea              |                | 18 mgs%                   |                |            |             |
|  |                                |      |                 |   | Serum Cholesterol      |            | 254 mgs%      |             |       | Serum Cholesterol     |                | 200 mgs%                  |                |            |             |
|  |                                |      |                 |   | URINE                  |            |               |             |       | URINE                 |                |                           |                |            |             |
|  | Rhonchi                        | P    | Rhonchi         | A   | Albumin                |            | Nil           |             |       | Albumin               |                | Nil                       |                |            |             |
|  |                                |      |                 |   | Sugar                  |            | Nil           |             |       | Sugar                 |                | Nil                       |                |            |             |
|  | RR                             | 29/M | RR              | 21/M  | Deposits               |            | 2-3 pus cells |             |       | Deposits              |                | NAD                       |                |            |             |
|  |                                |      |                 |   | PEFR                   |            | 170 lits/min  |             |       | PEFR                  |                | 350lits/min               |                |            |             |
|  |                                |      |                 |   | CHEST X – RAY          |            | Normal        |             |       | Response              |                | Good, No adverse effects. |                |            |             |
| SPUTUM FOR AFB   |                                |      |                 |   | Negative               |            |               |             |       |                       |                |                           |                |            |             |
|  |                                |      |                 | MANTOUX   |                        | Negative   |               |             |       |                       |                |                           |                |            |             |

|   |   |      |                 |      |                        |            |                  |             |                   |                           |                |                  |                |             |
|---|---|------|-----------------|------|------------------------|------------|------------------|-------------|-------------------|---------------------------|----------------|------------------|----------------|-------------|
| 14. Name  | Murugan   |      |                 | Age: | 45                     | Sex :      | M                | O.P.No      | 76101             | No. of Days Treated :     | 22             | From: 26.09.2012 | To: 18.10.2012 |             |
| Drug:   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |            |                  | Diagnosis : |                   |                           | Eraippu erumal | Occupation:      | Beedi worker   | mixed diet. |
| Complaints & Duration   | Respiratory System Examination                                    |      |                 |      | Investigations         |            |                  |             |                   |                           |                |                  |                |             |
|   | Before Treatment  |      | After Treatment |      | Before Treatment       |            |                  |             |                   | After Treatment           |                |                  |                |             |
| Cough tightness of chest, headache difficulty in breathing. Since 2 years | Cough   | P    | Cough           | A    | BLOOD                  |            |                  |             |                   | BLOOD                     |                |                  |                |             |
|   |   |      |                 |      | TC - 8700 cells / cumm |            |                  |             |                   | TC - 9100 Cells/cumm      |                |                  |                |             |
|   |   |      |                 |      | DC                     | P - 58%    | L - 37%          | E - 5%      |                   | DC                        | P - 60%        | L - 36%          | E - 4%         |             |
|   | Sputum  | W    | Sputum          | A    | ESR                    | ½ hr - 6mm |                  | 1 hr - 13mm |                   | ESR                       | ½ hr - 2mm     |                  | 1 hr - 6mm     |             |
|   |   |      |                 |      | Hb                     |            | 80%              |             | Hb                |                           | 78%            |                  |                |             |
|   |   |      |                 |      | Bl.Sugar (R)           |            | 74 mgs%          |             | Bl.Sugar ( R )    |                           | 97 mgs%        |                  |                |             |
|   | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |            | 11mgs%           |             | Bl. Urea          |                           | 18 mgs%        |                  |                |             |
|   |   |      |                 |      | Serum Cholesterol      |            | 254mgs%          |             | Serum Cholesterol |                           | 256 mgs%       |                  |                |             |
|   |   |      |                 |      | URINE                  |            |                  |             |                   | URINE                     |                |                  |                |             |
|   | Rhonchi   | P    | Rhonchi         | A    | Albumin                |            | Nil              |             | Albumin           |                           | Nil            |                  |                |             |
|   |   |      |                 |      | Sugar                  |            | Nil              |             | Sugar             |                           | Nil            |                  |                |             |
|   | RR  | 28/M | RR              | 21/M | Deposits               |            | 2 to 3 pus cells |             | Deposits          |                           | NAD            |                  |                |             |
|   |   |      |                 |      | PEFR                   |            | 70 lits/min      |             | PEFR              |                           | 290 lits/min   |                  |                |             |
|   |   |      |                 |      | CHEST X – RAY          |            | Normal           |             | Response          | Good, No adverse effects. |                |                  |                |             |
| SPUTUM FOR AFB  |   |      |                 |      | Negative               |            |                  |             |                   |                           |                |                  |                |             |
| MANTOUX   |   |      |                 |      | Negative               |            |                  |             |                   |                           |                |                  |                |             |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms

## OUT-PATIENTS

|   |   |       |                 |       |                        |             |                |                       |                      |                           |                |        |
|---|---|-------|-----------------|-------|------------------------|-------------|----------------|-----------------------|----------------------|---------------------------|----------------|--------|
| 15. Name  | Velmani   | Age : | 56              | Sex : | F                      | O.P.No :    | 76816          | No. of Days Treated : | 20                   | From: 28.09.2012          | To: 18.10.2012 |        |
| Drug :  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |       |                 |       |                        | Diagnosis : | Eraippu erumal |                       | Occupation :         | Beedi worker mixed diet.  |                |        |
| Complaints & Duration   | Respiratory System Examination                                    |       |                 |       | Investigations         |             |                |                       |                      |                           |                |        |
|   | Before Treatment  |       | After Treatment |       | Before Treatment       |             |                |                       | After Treatment      |                           |                |        |
| Difficulty in breathing, tightness of chest, cough since 3 years<br><br>History of allergy present. | Cough   | P     | Cough           | A     | BLOOD                  |             |                |                       | BLOOD                |                           |                |        |
|   |   |       |                 |       | TC - 9100 cells / cumm |             |                |                       | TC - 9800 Cells/cumm |                           |                |        |
|   |   |       |                 |       | DC                     | P - 58%     | L- 38%         | E - 8%                | DC                   | P - 64%                   | L - 34%        | E - 2% |
|   | Sputum  | W     | Sputum          | A     | ESR                    | ½ hr - 1mm  | 1 hr - 3mm     | ESR                   | ½ hr - 2mm           | 1 hr - 8 mm               |                |        |
|   |   |       |                 |       | Hb                     |             | 78%            |                       | Hb                   |                           | 74%            |        |
|   |   |       |                 |       | Bl.Sugar (R)           |             | 97mgs%         |                       | Bl.Sugar ( R )       |                           | 125 mgs%       |        |
|   | Breathlessness  | P     | Breathlessness  | A     | Bl. Urea               |             | 14mgs%         |                       | Bl. Urea             |                           | 20 mgs%        |        |
|   |   |       |                 |       | Serum Cholesterol      |             | 150 mgs%       |                       | Serum Cholesterol    |                           | 150 mgs%       |        |
|   |   |       |                 |       | URINE                  |             |                |                       | URINE                |                           |                |        |
|   | Rhonchi   | P     | Rhonchi         | A     | Albumin                |             | Nil            |                       | Albumin              |                           | Nil            |        |
|   |   |       |                 |       | Sugar                  |             | Nil            |                       | Sugar                |                           | Nil            |        |
|   | RR  | 28/M  | RR              | 20/M  | Deposits               |             | NAD            |                       | Deposits             |                           | NAD            |        |
|   |   |       |                 |       | PEFR                   |             | 150 lits/min   |                       | PEFR                 |                           | 380 lits/min   |        |
|   |   |       |                 |       | CHEST X – RAY          |             | Bronchitis     |                       | Response             | Good, No adverse effects. |                |        |
| SPUTUM FOR AFB  |   |       |                 |       | Negative               |             |                |                       |                      |                           |                |        |
| MANTOUX   |   |       |                 |       | Negative               |             |                |                       |                      |                           |                |        |

|   |   |      |                 |       |                        |             |                   |                       |                      |                                |               |        |
|---|---|------|-----------------|-------|------------------------|-------------|-------------------|-----------------------|----------------------|--------------------------------|---------------|--------|
| 16. Name  | Ramkumar  | Age: | 30              | Sex : | M                      | O.P.No      | 76815             | No. of Days Treated : | 20                   | From: 28.09.2012               | To:18.09.2012 |        |
| Drug:   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |       |                        | Diagnosis : | Eraippu erumal    |                       | Occupation:          | Business – Leather mixed diet. |               |        |
| Complaints & Duration   | Respiratory System Examination                                    |      |                 |       | Investigations         |             |                   |                       |                      |                                |               |        |
|   | Before Treatment  |      | After Treatment |       | Before Treatment       |             |                   |                       | After Treatment      |                                |               |        |
| Difficulty in breathing<br>Cough without expectoration, tightness of chest sllpelessness since 1 year | Cough   | P    | Cough           | A     | BLOOD                  |             |                   |                       | BLOOD                |                                |               |        |
|   |   |      |                 |       | TC - 7500 cells / cumm |             |                   |                       | TC - 8200 Cells/cumm |                                |               |        |
|   |   |      |                 |       | DC                     | P - 54%     | L - 42%           | E - 4%                | DC                   | P - 55%                        | L - 44%       | E - 1% |
|   | Sputum  | W    | Sputum          | W     | ESR                    | ½ hr - 1mm  | 1 hr - 3mm        | ESR                   | ½ hr - 1mm           | 1 hr - 3mm                     |               |        |
|   |   |      |                 |       | Hb                     |             | 78%               |                       | Hb                   |                                | 76%           |        |
|   |   |      |                 |       | Bl.Sugar (R)           |             | 70 mgs%           |                       | Bl.Sugar ( R )       |                                | 76 mgs%       |        |
|   | Breathlessness  | P    | Breathlessness  | R     | Bl. Urea               |             | 21 mgs%           |                       | Bl. Urea             |                                | 26 mgs%       |        |
|   |   |      |                 |       | Serum Cholesterol      |             | 123 mgs%          |                       | Serum Cholesterol    |                                | 120 mgs%      |        |
|   |   |      |                 |       | URINE                  |             |                   |                       | URINE                |                                |               |        |
|   | Rhonchi   | P    | Rhonchi         | R     | Albumin                |             | Nil               |                       | Albumin              |                                | Nil           |        |
|   |   |      |                 |       | Sugar                  |             | Nil               |                       | Sugar                |                                | Nil           |        |
|   | RR  | 26/M | RR              | 18/M  | Deposits               |             | 1-2 puscells /HPF |                       | Deposits             |                                | NAD           |        |
|   |   |      |                 |       | PEFR                   |             | 200 lits/min      |                       | PEFR                 |                                | 360 lits/min  |        |
|   |   |      |                 |       | CHEST X – RAY          |             | Normal            |                       | Response             | Good, No adverse effects.      |               |        |
| SPUTUM FOR AFB  |   |      |                 |       | Negative               |             |                   |                       |                      |                                |               |        |
| MANTOUX   |   |      |                 |       | Negative               |             |                   |                       |                      |                                |               |        |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
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## OUT-PATIENTS

|   |   |      |                 |      |                        |            |                         |                |                       |                            |                          |                |            |  |
|---|---|------|-----------------|------|------------------------|------------|-------------------------|----------------|-----------------------|----------------------------|--------------------------|----------------|------------|--|
| 17. Name  | Pathrakaali   |      | Age :           | 60   | Sex :                  | F          | O.P.No                  | 78864          | No. of Days Treated : | 25                         | From:04.10.2012          | To: 29.10.2012 |            |  |
| Drug :  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |            | Diagnosis :             | Eraippu erumal |                       | Occupation :               | Beedi worker mixed diet. |                |            |  |
| Complaints & Duration   | Respiratory System Examination                                    |      |                 |      | Investigations         |            |                         |                |                       |                            |                          |                |            |  |
|   | Before Treatment  |      | After Treatment |      | Before Treatment       |            |                         |                | After Treatment       |                            |                          |                |            |  |
| Cough without expectoration, tightness of chest, headache since 4 years | Cough   | P    | Cough           | A    | BLOOD                  |            |                         |                | BLOOD                 |                            |                          |                |            |  |
|   |   |      |                 |      | TC - 8500 cells / cumm |            |                         |                | TC - 9200 Cells/cumm  |                            |                          |                |            |  |
|   |   |      |                 |      | DC                     | P - 61%    | L- 30%                  | E - 9%         | DC                    | P - 66%                    | L - 31%                  | E - 5%         |            |  |
|   | Sputum  | W    | Sputum          | A    | ESR                    | ½ hr - 3mm |                         | 1 hr - 7mm     |                       | ESR                        | ½ hr - 2mm               |                | 1 hr - 6mm |  |
|   |   |      |                 |      | Hb                     |            | 78%                     |                | Hb                    |                            | 79%                      |                |            |  |
|   |   |      |                 |      | Bl.Sugar (R)           |            | 80 mgs%                 |                | Bl.Sugar ( R )        |                            | 78 mgs%                  |                |            |  |
|   | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |            | 21 mgs%                 |                | Bl. Urea              |                            | 22 mgs%                  |                |            |  |
|   |   |      |                 |      | Serum Cholesterol      |            | 110 mgs%                |                | Serum Cholesterol     |                            | 134 mgs%                 |                |            |  |
|   |   |      |                 |      | URINE                  |            |                         |                | URINE                 |                            |                          |                |            |  |
|   | Rhonchi   | P    | Rhonchi         | A    | Albumin                |            | Nil                     |                | Albumin               |                            | Nil                      |                |            |  |
|   |   |      |                 |      | Sugar                  |            | Nil                     |                | Sugar                 |                            | Nil                      |                |            |  |
|   | RR  | 27/M | RR              | 18/M | Deposits               |            | 1 to 2 epithelial cells |                | Deposits              |                            | NAD                      |                |            |  |
|   |   |      |                 |      | PEFR                   |            | 120 lits/min            |                | PEFR                  |                            | 330 lits/min             |                |            |  |
|   |   |      |                 |      | CHEST X – RAY          |            | Normal                  |                | Response              | Good , No adverse effects. |                          |                |            |  |
| SPUTUM FOR AFB  |   |      |                 |      | Negative               |            |                         |                |                       |                            |                          |                |            |  |
| MANTOUX   |   |      |                 |      | Negative               |            |                         |                |                       |                            |                          |                |            |  |

|  |   |      |                 |      |                          |            |                           |                |                        |                           |                          |               |            |  |
|--|---|------|-----------------|------|--------------------------|------------|---------------------------|----------------|------------------------|---------------------------|--------------------------|---------------|------------|--|
| 18. Name   | Selvaraj  |      | Age:            | 60   | Sex :                    | M          | O.P.No                    | 79059          | No. of Days Treated :  | 19                        | From: 05.10.2012         | To:24.10.2012 |            |  |
| Drug:  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                          |            | Diagnosis :               | Eraippu erumal |                        | Occupation:               | Beedi worker mixed diet. |               |            |  |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |      | Investigations           |            |                           |                |                        |                           |                          |               |            |  |
|  | Before Treatment  |      | After Treatment |      | Before Treatment         |            |                           |                | After Treatment        |                           |                          |               |            |  |
| Difficulty in breathing, Cough with scanty sputum, headache tightness since 4 years. | Cough   | P    | Cough           | A    | BLOOD                    |            |                           |                | BLOOD                  |                           |                          |               |            |  |
|  |   |      |                 |      | TC - 10,200 cells / cumm |            |                           |                | TC - 10,000 Cells/cumm |                           |                          |               |            |  |
|  |   |      |                 |      | DC                       | P - 50%    | L - 36%                   | E - 14%        | DC                     | P - 60%                   | L - 35%                  | E - 5%        |            |  |
|  | Sputum  | W    | Sputum          | A    | ESR                      | ½ hr - 5mm |                           | 1 hr - 12mm    |                        | ESR                       | ½ hr - 2mm               |               | 1 hr - 6mm |  |
|  |   |      |                 |      | Hb                       |            | 76%                       |                | Hb                     |                           | 78%                      |               |            |  |
|  |   |      |                 |      | Bl.Sugar (R)             |            | 86mgs%                    |                | Bl.Sugar ( R )         |                           | 86mgs%                   |               |            |  |
|  | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea                 |            | 24 mgs%                   |                | Bl. Urea               |                           | 20 mgs%                  |               |            |  |
|  |   |      |                 |      | Serum Cholesterol        |            | 182 mgs%                  |                | Serum Cholesterol      |                           | 176 mgs%                 |               |            |  |
|  |   |      |                 |      | URINE                    |            |                           |                | URINE                  |                           |                          |               |            |  |
|  | Rhonchi   | P    | Rhonchi         | A    | Albumin                  |            | Nil                       |                | Albumin                |                           | Nil                      |               |            |  |
|  |   |      |                 |      | Sugar                    |            | Nil                       |                | Sugar                  |                           | Nil                      |               |            |  |
|  | RR  | 28/M | RR              | 19/M | Deposits                 |            | Few epithelial cells seen |                | Deposits               |                           | NAD                      |               |            |  |
|  |   |      |                 |      | PEFR                     |            | 110 lits/min              |                | PEFR                   |                           | 360 lits/min             |               |            |  |
|  |   |      |                 |      | CHEST X – RAY            |            | Normal                    |                | Response               | Good, No adverse effects. |                          |               |            |  |
| SPUTUM FOR AFB   |   |      |                 |      | Negative                 |            |                           |                |                        |                           |                          |               |            |  |
| MANTOUX  |   |      |                 |      | Negative                 |            |                           |                |                        |                           |                          |               |            |  |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
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## OUT-PATIENTS

|  |   |     |                 |       |                        |            |               |                           |                      |                       |              |                  |                |  |
|--|---|-----|-----------------|-------|------------------------|------------|---------------|---------------------------|----------------------|-----------------------|--------------|------------------|----------------|--|
| 19. Name   | Kannan  |     |                 | Age : | 41                     | Sex :      | M             | O.P.No                    | 80344                | No. of Days Treated : | 26           | From: 09.10.2012 | To: 05.11.2012 |  |
| Drug :   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |     |                 |       |                        |            |               | Diagnosis :               | Eraippu erumal       |                       | Occupation : | Beedi worker     | mixed diet.    |  |
| Complaints & Duration  | Respiratory System Examination                                    |     |                 |       | Investigations         |            |               |                           |                      |                       |              |                  |                |  |
|  | Before Treatment  |     | After Treatment |       | Before Treatment       |            |               |                           | After Treatment      |                       |              |                  |                |  |
| Difficulty in breathing., chest tightness, Cough without expectoration, since 2 year | Cough   | P   | Cough           | A     | BLOOD                  |            |               |                           | BLOOD                |                       |              |                  |                |  |
|  |   |     |                 |       | TC - 8700 Cells / cumm |            |               |                           | TC - 9600 Cells/cumm |                       |              |                  |                |  |
|  |   |     |                 |       | DC                     | P - 55%    | L- 40%        | E - 5%                    | DC                   | P- 65%                | L - 33%      | E - 2%           |                |  |
|  | Sputum  | W   | Sputum          | A     | ESR                    | ½ hr - 3mm |               | 1 hr - 7mm                |                      | ESR                   | ½ hr - 1mm   |                  | 1 hr - 2mm     |  |
|  |   |     |                 |       | Hb                     |            | 72%           |                           | Hb                   |                       | 72%          |                  |                |  |
|  |   |     |                 |       | Bl.Sugar (R)           |            | 87 mgs%       |                           | Bl.Sugar ( R )       |                       | 82 mgs%      |                  |                |  |
|  | Breathlessness  | P   | Breathlessness  | R     | Bl. Urea               |            | 16 mgs%       |                           | Bl. Urea             |                       | 20 mgs%      |                  |                |  |
|  |   |     |                 |       | Serum Cholesterol      |            | 200 mgs%      |                           | Serum Cholesterol    |                       | 161 mgs%     |                  |                |  |
|  |   |     |                 |       | URINE                  |            |               |                           | URINE                |                       |              |                  |                |  |
|  | Rhonchi   | P   | Rhonchi         | R     | Albumin                |            | Nil           |                           | Albumin              |                       | Nil          |                  |                |  |
|  |   |     |                 |       | Sugar                  |            | Nil           |                           | Sugar                |                       | Nil          |                  |                |  |
|  | RR  | 27M | RR              | 19/M  | Deposits               |            | Occ pus cells |                           | Deposits             |                       | NAD          |                  |                |  |
|  |   |     |                 |       | PEFR                   |            | 130 lits/min  |                           | PEFR                 |                       | 320lits/min  |                  |                |  |
| CHEST X – RAY  |   |     |                 |       | Normal                 |            | Response      | Good, No adverse effects. |                      |                       |              |                  |                |  |
| SPUTUM FOR AFB   |   |     |                 |       | Negative               |            |               |                           |                      |                       |              |                  |                |  |
| MANTOUX  |   |     |                 |       | Negative               |            |               |                           |                      |                       |              |                  |                |  |

|   |   |      |                 |      |                         |            |               |                           |                      |                       |              |                  |                |  |
|---|---|------|-----------------|------|-------------------------|------------|---------------|---------------------------|----------------------|-----------------------|--------------|------------------|----------------|--|
| 20. Name  | Cinnathai   |      |                 | Age: | 43                      | Sex :      | F             | O.P.No                    | 80887                | No. of Days Treated : | 25           | From: 11.10.2012 | To: 05.11.2012 |  |
| Drug:   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                         |            |               | Diagnosis :               | Eraippu erumal       |                       | Occupation:  | Sweeper          |                |  |
| Complaints & Duration   | Respiratory System Examination                                    |      |                 |      | Investigations          |            |               |                           |                      |                       |              |                  |                |  |
|   | Before Treatment  |      | After Treatment |      | Before Treatment        |            |               |                           | After Treatment      |                       |              |                  |                |  |
| Difficulty in breathing, Cough without expectoration, tightness of chest since. 6 months.<br><br>History of allergy present | Cough   | P    | Cough           | A    | BLOOD                   |            |               |                           | BLOOD                |                       |              |                  |                |  |
|   |   |      |                 |      | TC - 79300 cells / cumm |            |               |                           | TC - 9800 Cells/cumm |                       |              |                  |                |  |
|   |   |      |                 |      | DC                      | P - 55%    | L - 40%       | E - 5%                    | DC                   | P - 65%               | L - 37%      | E - 1%           |                |  |
|   | Sputum  | W    | Sputum          | A    | ESR                     | ½ hr - 3mm |               | 1 hr - 7mm                |                      | ESR                   | ½ hr - 3mm   |                  | 1 hr - 6mm     |  |
|   |   |      |                 |      | Hb                      |            | 72%           |                           | Hb                   |                       | 76%          |                  |                |  |
|   |   |      |                 |      | Bl.Sugar (R)            |            | 87 mgs%       |                           | Bl.Sugar ( R )       |                       | 95 mgs%      |                  |                |  |
|   | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea                |            | 16mgs%        |                           | Bl. Urea             |                       | 24mgs%       |                  |                |  |
|   |   |      |                 |      | Serum Cholesterol       |            | 200mgs%       |                           | Serum Cholesterol    |                       | 190mgs%      |                  |                |  |
|   |   |      |                 |      | URINE                   |            |               |                           | URINE                |                       |              |                  |                |  |
|   | Rhonchi   | P    | Rhonchi         | A    | Albumin                 |            | Nil           |                           | Albumin              |                       | Nil          |                  |                |  |
|   |   |      |                 |      | Sugar                   |            | Nil           |                           | Sugar                |                       | Nil          |                  |                |  |
|   | RR  | 26/M | RR              | 19/M | Deposits                |            | Occ pus cells |                           | Deposits             |                       | NAD          |                  |                |  |
|   |   |      |                 |      | PEFR                    |            | 150 lits/min  |                           | PEFR                 |                       | 370 lits/min |                  |                |  |
| CHEST X – RAY   |   |      |                 |      | Bronchitis              |            | Response      | Good, No adverse effects. |                      |                       |              |                  |                |  |
| SPUTUM FOR AFB  |   |      |                 |      | Negative                |            |               |                           |                      |                       |              |                  |                |  |
| MANTOUX   |   |      |                 |      | Negative                |            |               |                           |                      |                       |              |                  |                |  |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
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## OUT-PATIENTS

|  |   |      |                 |       |                        |             |             |             |                      |                           |              |                  |                |  |
|--|---|------|-----------------|-------|------------------------|-------------|-------------|-------------|----------------------|---------------------------|--------------|------------------|----------------|--|
| 21. Name   | Rakkayee  |      |                 | Age : | 40                     | Sex :       | F           | O.P.No      | 81459                | No. of Days Treated :     | 24           | From: 12.10.2012 | To: 05.10.2012 |  |
| Drug :   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |       |                        |             |             | Diagnosis : | Eraippu erumal       |                           | Occupation : | Beedi worker     | mixed diet     |  |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |       | Investigations         |             |             |             |                      |                           |              |                  |                |  |
|  | Before Treatment  |      | After Treatment |       | Before Treatment       |             |             |             | After Treatment      |                           |              |                  |                |  |
| Cough with scanty sputum tightness of chest, difficulty in breathing, sneezing. since 1 year<br><br>Related Family history present | Cough   | P    | Cough           | A     | BLOOD                  |             |             |             | BLOOD                |                           |              |                  |                |  |
|  |   |      |                 |       | TC - 9000 cells / cumm |             |             |             | TC - 9800 Cells/cumm |                           |              |                  |                |  |
|  |   |      |                 |       | DC                     | P - 69%     | L- 28%      | E - 3%      | DC                   | P - 63%                   | L - 35%      | E - 2%           |                |  |
|  | Sputum  | W    | Sputum          | A     | ESR                    | ½ hr - 20mm |             | 1 hr - 45mm |                      | ESR                       | ½ hr - 15mm  |                  | 1 hr - 30mm    |  |
|  |   |      |                 |       | Hb                     |             | 68%         |             | Hb                   |                           | 74%          |                  |                |  |
|  |   |      |                 |       | Bl.Sugar (R)           |             | 80 mgs%     |             | Bl.Sugar ( R )       |                           | 90 mgs%      |                  |                |  |
|  | Breathlessness  | P    | Breathlessness  | A     | Bl. Urea               |             | 21 mgs%     |             | Bl. Urea             |                           | 20 mgs%      |                  |                |  |
|  |   |      |                 |       | Serum Cholesterol      |             | 142 mgs%    |             | Serum Cholesterol    |                           | 200 mgs%     |                  |                |  |
|  |   |      |                 |       | URINE                  |             |             |             | URINE                |                           |              |                  |                |  |
|  | Rhonchi   | P    | Rhonchi         | A     | Albumin                |             | NIL         |             | Albumin              |                           | Nil          |                  |                |  |
|  |   |      |                 |       | Sugar                  |             | NIL         |             | Sugar                |                           | Nil          |                  |                |  |
|  | RR  | 24/M | RR              | 19/M  | Deposits               |             | NAD         |             | Deposits             |                           | NAD          |                  |                |  |
|  |   |      |                 |       | PEFR                   |             | 80 lits/min |             | PEFR                 |                           | 140 lits/min |                  |                |  |
|  |   |      |                 |       | CHEST X – RAY          |             | Normal      |             | Response             | Fair, No adverse effects. |              |                  |                |  |
|  |   |      |                 |       | SPUTUM FOR AFB         |             | Negative    |             |                      |                           |              |                  |                |  |
| MANTOUX  |   |      |                 |       | Negative               |             |             |             |                      |                           |              |                  |                |  |

|  |   |      |                 |      |                        |            |             |             |                      |                            |              |                  |                |  |
|--|---|------|-----------------|------|------------------------|------------|-------------|-------------|----------------------|----------------------------|--------------|------------------|----------------|--|
| 22. Name   | Muthulakshmi  |      |                 | Age: | 54                     | Sex :      | F           | O.P.No      | 85075                | No. of Days Treated :      | 20           | From: 25.10.2012 | To: 14.11.2012 |  |
| Drug:  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |            |             | Diagnosis : | Eraippu erumal       |                            | Occupation:  | House wife       | mixed diet     |  |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |      | Investigations         |            |             |             |                      |                            |              |                  |                |  |
|  | Before Treatment  |      | After Treatment |      | Before Treatment       |            |             |             | After Treatment      |                            |              |                  |                |  |
| Difficulty in breathing, cough without expectoration, sneezing, tightness of chest since 3 years | Cough   | P    | Cough           | A    | BLOOD                  |            |             |             | BLOOD                |                            |              |                  |                |  |
|  |   |      |                 |      | TC - 7900 cells / cumm |            |             |             | TC - 8300 Cells/cumm |                            |              |                  |                |  |
|  |   |      |                 |      | DC                     | P - 56%    | L - 39%     | E - 5%      | DC                   | P - 61%                    | L - 36%      | E - 3%           |                |  |
|  | Sputum  | W    | Sputum          | A    | ESR                    | ½ hr - 4mm |             | 1 hr - 8mm  |                      | ESR                        | ½ hr - 3mm   |                  | 1 hr - 6mm     |  |
|  |   |      |                 |      | Hb                     |            | 64%         |             | Hb                   |                            | 78%          |                  |                |  |
|  |   |      |                 |      | Bl.Sugar (R)           |            | 80mgs%      |             | Bl.Sugar ( R )       |                            | 92 mgs%      |                  |                |  |
|  | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |            | 24 mgs%     |             | Bl. Urea             |                            | 28 mgs%      |                  |                |  |
|  |   |      |                 |      | Serum Cholesterol      |            | 180 mgs%    |             | Serum Cholesterol    |                            | 196 mgs%     |                  |                |  |
|  |   |      |                 |      | URINE                  |            |             |             | URINE                |                            |              |                  |                |  |
|  | Rhonchi   | P    | Rhonchi         | A    | Albumin                |            | Nil         |             | Albumin              |                            | Nil          |                  |                |  |
|  |   |      |                 |      | Sugar                  |            | Nil         |             | Sugar                |                            | Nil          |                  |                |  |
|  | RR  | 22/M | RR              | 17/M | Deposits               |            | NAD         |             | Deposits             |                            | NAD          |                  |                |  |
|  |   |      |                 |      | PEFR                   |            | 90 lits/min |             | PEFR                 |                            | 260 lits/min |                  |                |  |
|  |   |      |                 |      | CHEST X – RAY          |            | Normal      |             | Response             | Good , No adverse effects. |              |                  |                |  |
|  |   |      |                 |      | SPUTUM FOR AFB         |            | Negative    |             |                      |                            |              |                  |                |  |
| MANTOUX  |   |      |                 |      | negative               |            |             |             |                      |                            |              |                  |                |  |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms

## OUT-PATIENTS

|  |   |          |                 |       |                        |            |          |                           |                   |          |                      |         |                       |         |              |                 |                           |  |
|--|---|----------|-----------------|-------|------------------------|------------|----------|---------------------------|-------------------|----------|----------------------|---------|-----------------------|---------|--------------|-----------------|---------------------------|--|
| 23. Name   | Ramalingam  |          |                 | Age : | 57                     |            | Sex :    | M                         |                   | O.P.No : | 87017                |         | No. of Days Treated : | 24      |              | From:01.11.2012 | To: 24.11.2012            |  |
| Drug :   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |          |                 |       |                        |            |          |                           | Diagnosis :       |          |                      |         | Eraippu erumal        |         | Occupation : |                 | Shop worker<br>mixed diet |  |
| Complaints & Duration  | Respiratory System Examination                                    |          |                 |       | Investigations         |            |          |                           |                   |          |                      |         |                       |         |              |                 |                           |  |
|  | Before Treatment  |          | After Treatment |       | Before Treatment       |            |          |                           |                   |          | After Treatment      |         |                       |         |              |                 |                           |  |
| Difficulty in breathing,<br>Cough without expectoration, tightness of chest and sneezing since 4 years<br>History of smoking present | Cough   | P        | Cough           | A     | BLOOD                  |            |          |                           |                   |          | BLOOD                |         |                       |         |              |                 |                           |  |
|  |   |          |                 |       | TC - 9000 cells / cumm |            |          |                           |                   |          | TC - 9200 Cells/cumm |         |                       |         |              |                 |                           |  |
|  |   |          |                 |       | DC                     | P - 55%    |          | L - 38%                   | E - 7%            |          | DC                   | P - 63% |                       | L - 35% | E - 2%       |                 |                           |  |
|  | Sputum  | W        | Sputum          | A     | ESR                    | ½ hr - 5mm |          | 1 hr - 10mm               |                   | ESR      | ½ hr - 4mm           |         | 1 hr - 8mm            |         |              |                 |                           |  |
|  |   |          |                 |       | Hb                     |            | 78%      |                           | Hb                |          | 78%                  |         |                       |         |              |                 |                           |  |
|  |   |          |                 |       | Bl.Sugar (R)           |            | 110 mgs% |                           | Bl.Sugar ( R )    |          | 112 mgs%             |         |                       |         |              |                 |                           |  |
|  | Breathlessness  | P        | Breathlessness  | A     | Bl. Urea               |            | 22 mgs%  |                           | Bl. Urea          |          | 21 mgs%              |         |                       |         |              |                 |                           |  |
|  |   |          |                 |       | Serum Cholesterol      |            | 150 mgs% |                           | Serum Cholesterol |          | 149mgs%              |         |                       |         |              |                 |                           |  |
|  |   |          |                 |       | URINE                  |            |          |                           |                   |          | URINE                |         |                       |         |              |                 |                           |  |
|  | Rhonchi   | P        | Rhonchi         | A     | Albumin                |            | Nil      |                           | Albumin           |          | Nil                  |         |                       |         |              |                 |                           |  |
|  |   |          |                 |       | Sugar                  |            | Nil      |                           | Sugar             |          | Nil                  |         |                       |         |              |                 |                           |  |
|  | RR  | 27/M     | RR              | 17/M  | Deposits               |            | NAD      |                           | Deposits          |          | NAD                  |         |                       |         |              |                 |                           |  |
| PEFR   |   |          |                 |       | 150 lits/min           |            | PEFR     |                           | 360 lits/min      |          |                      |         |                       |         |              |                 |                           |  |
| CHEST X – RAY  |   |          |                 |       | Normal                 |            | Response | Good, No adverse effects. |                   |          |                      |         |                       |         |              |                 |                           |  |
| SPUTUM FOR AFB   |   |          |                 |       | Negative               |            |          |                           |                   |          |                      |         |                       |         |              |                 |                           |  |
| MANTOUX  |   | Negative |                 |       |                        |            |          |                           |                   |          |                      |         |                       |         |              |                 |                           |  |

|  |   |      |                 |         |                          |            |             |             |                           |        |                        |       |                |                       |             |  |                  |               |            |  |
|--|---|------|-----------------|---------|--------------------------|------------|-------------|-------------|---------------------------|--------|------------------------|-------|----------------|-----------------------|-------------|--|------------------|---------------|------------|--|
| 24. Name   | Chellapponnu  |      |                 |         | Age:                     | 56         |             | Sex :       | F                         |        | O.P.No                 | 87024 |                | No. of Days Treated : | 24          |  | From: 01.11.2012 | To:24.11.2012 |            |  |
| Drug:  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |         |                          |            |             |             | Diagnosis :               |        |                        |       | Eraippu erumal |                       | Occupation: |  | House wife       |               | mixed diet |  |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |         | Investigations           |            |             |             |                           |        |                        |       |                |                       |             |  |                  |               |            |  |
|  | Before Treatment  |      | After Treatment |         | Before Treatment         |            |             |             |                           |        | After Treatment        |       |                |                       |             |  |                  |               |            |  |
| Cough without expectoration, breathlessness, sneezing, tightness of chest since 1 year | Cough   | P    | Cough           | A       | BLOOD                    |            |             |             |                           |        | BLOOD                  |       |                |                       |             |  |                  |               |            |  |
|  |   |      |                 |         | TC - 11,500 cells / cumm |            |             |             |                           |        | TC - 11,200 Cells/cumm |       |                |                       |             |  |                  |               |            |  |
|  |   |      |                 |         | DC                       | P - 68%    |             | L - 26%     |                           | E - 6% |                        | DC    | P - 63%        |                       | L - 35%     |  | E - 2%           |               |            |  |
|  | Sputum  | W    | Sputum          | A       | ESR                      | ½ hr - 7mm |             | 1 hr - 14mm |                           | ESR    | ½ hr - 4mm             |       | 1 hr - 8mm     |                       |             |  |                  |               |            |  |
|  |   |      |                 |         | Hb                       |            | 78%         |             | Hb                        |        | 70%                    |       |                |                       |             |  |                  |               |            |  |
|  |   |      |                 |         | Bl.Sugar (R)             |            | 80 mgs%     |             | Bl.Sugar ( R)             |        | 78 mgs%                |       |                |                       |             |  |                  |               |            |  |
|  | Breathlessness  | P    | Breathlessness  | R       | Bl. Urea                 |            | 18mgs%      |             | Bl. Urea                  |        | 19mgs%                 |       |                |                       |             |  |                  |               |            |  |
|  |   |      |                 |         | Serum Cholesterol        |            | 148 mgs%    |             | Serum Cholesterol         |        | 148mgs%                |       |                |                       |             |  |                  |               |            |  |
|  |   |      |                 |         | URINE                    |            |             |             |                           |        | URINE                  |       |                |                       |             |  |                  |               |            |  |
|  | Rhonchi   | P    | Rhonchi         | R       | Albumin                  |            | Nil         |             | Albumin                   |        | Nil                    |       |                |                       |             |  |                  |               |            |  |
|  |   |      |                 |         | Sugar                    |            | Nil         |             | Sugar                     |        | Nil                    |       |                |                       |             |  |                  |               |            |  |
|  | RR  | 27/M | RR              | 17/M    | Deposits                 |            | NAD         |             | Deposits                  |        | NAD                    |       |                |                       |             |  |                  |               |            |  |
|  |   |      |                 |         | PEFR                     |            | 80 lits/min |             | PEFR                      |        | 310 lits/min           |       |                |                       |             |  |                  |               |            |  |
| CHEST X – RAY  |   |      |                 |         | Normal                   |            | Response    |             | Good, No adverse effects. |        |                        |       |                |                       |             |  |                  |               |            |  |
| SPUTUM FOR AFB   |   |      |                 |         | Negative                 |            |             |             |                           |        |                        |       |                |                       |             |  |                  |               |            |  |
|  |   |      |                 | MANTOUX |                          | negative   |             |             |                           |        |                        |       |                |                       |             |  |                  |               |            |  |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms

## OUT-PATIENTS

|   |   |      |                 |       |                        |            |              |             |                      |                           |              |                  |                |  |
|---|---|------|-----------------|-------|------------------------|------------|--------------|-------------|----------------------|---------------------------|--------------|------------------|----------------|--|
| 25. Name  | Ragumath  |      |                 | Age : | 26                     | Sex :      | F            | O.P.No      | 87865                | No. of Days Treated :     | 21           | From: 03.11.2012 | To: 24.11.2012 |  |
| Drug :  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |       |                        |            |              | Diagnosis : | Eraippu erumal       |                           | Occupation : | House wife       | mixed diet     |  |
| Complaints & Duration   | Respiratory System Examination                                    |      |                 |       | Investigations         |            |              |             |                      |                           |              |                  |                |  |
|   | Before Treatment  |      | After Treatment |       | Before Treatment       |            |              |             | After Treatment      |                           |              |                  |                |  |
| Cough with expectoration tightness of chest during cough difficulty in breathin, wheezing since 2 years | Cough   | P    | Cough           | R     | BLOOD                  |            |              |             | BLOOD                |                           |              |                  |                |  |
|   |   |      |                 |       | TC - 8900 cells / cumm |            |              |             | TC - 9000 Cells/cumm |                           |              |                  |                |  |
|   |   |      |                 |       | DC                     | P - 60%    | L- 28%       | E - 12%     | DC                   | P - 61%                   | L - 31%      | E - 8%           |                |  |
|   | Sputum  | W    | Sputum          | A     | ESR                    | ½ hr - 2mm |              | 1 hr - 10mm |                      | ESR                       | ½ hr - 2mm   |                  | 1 hr - 7mm     |  |
|   |   |      |                 |       | Hb                     |            | 76%          |             | Hb                   |                           | 78%          |                  |                |  |
|   |   |      |                 |       | Bl.Sugar (R)           |            | 60 mgs%      |             | Bl.Sugar ( R )       |                           | 64mgs%       |                  |                |  |
|   | Breathlessness  | P    | Breathlessness  | R     | Bl. Urea               |            | 31 mgs%      |             | Bl. Urea             |                           | 28 mgs%      |                  |                |  |
|   |   |      |                 |       | Serum Cholesterol      |            | 151 mgs%     |             | Serum Cholesterol    |                           | 159mgs%      |                  |                |  |
|   |   |      |                 |       | URINE                  |            |              |             | URINE                |                           |              |                  |                |  |
|   | Rhonchi   | P    | Rhonchi         | R     | Albumin                |            | Nil          |             | Albumin              |                           | Nil          |                  |                |  |
|   |   |      |                 |       | Sugar                  |            | Nil          |             | Sugar                |                           | Nil          |                  |                |  |
|   | RR  | 35/M | RR              | 24/M  | Deposits               |            | NAD          |             | Deposits             |                           | NAD          |                  |                |  |
|   |   |      |                 |       | PEFR                   |            | 180 lits/min |             | PEFR                 |                           | 350 lits/min |                  |                |  |
|   |   |      |                 |       | CHEST X – RAY          |            | Normal       |             | Response             | Poor, No adverse effects. |              |                  |                |  |
| SPUTUM FOR AFB  |   |      |                 |       | Negaitve               |            |              |             |                      |                           |              |                  |                |  |
| MANTOUX   |   |      |                 |       | Negative               |            |              |             |                      |                           |              |                  |                |  |

|  |   |      |                 |      |                        |             |                           |             |                      |                            |              |                  |                |  |
|--|---|------|-----------------|------|------------------------|-------------|---------------------------|-------------|----------------------|----------------------------|--------------|------------------|----------------|--|
| 26. Name   | Madaththi   |      |                 | Age: | 30                     | Sex :       | F                         | O.P.No      | 89015                | No. of Days Treated :      | 25           | From: 06.11.2012 | To: 01.12.2012 |  |
| Drug:  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |             |                           | Diagnosis : | Eraippu erumal       |                            | Occupation:  | House wife       | mixed diet     |  |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |      | Investigations         |             |                           |             |                      |                            |              |                  |                |  |
|  | Before Treatment  |      | After Treatment |      | Before Treatment       |             |                           |             | After Treatment      |                            |              |                  |                |  |
| Cough without expectoration, breathlessness, tightness of chest since 2years<br><br>Related family history present | Cough   | P    | Cough           | A    | BLOOD                  |             |                           |             | BLOOD                |                            |              |                  |                |  |
|  |   |      |                 |      | TC - 9300 cells / cumm |             |                           |             | TC - 9400 Cells/cumm |                            |              |                  |                |  |
|  |   |      |                 |      | DC                     | P - 66%     | L - 30%                   | E - 4%      | DC                   | P - 64%                    | L - 33%      | E - 3%           |                |  |
|  | Sputum  | W    | Sputum          | A    | ESR                    | ½ hr - 10mm |                           | 1 hr - 15mm |                      | ESR                        | ½ hr - 5mm   |                  | 1 hr - 10mm    |  |
|  |   |      |                 |      | Hb                     |             | 74%                       |             | Hb                   |                            | 78%          |                  |                |  |
|  |   |      |                 |      | Bl.Sugar (R)           |             | 60 mgs%                   |             | Bl.Sugar ( R )       |                            | 78 mgs%      |                  |                |  |
|  | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |             | 27 mgs%                   |             | Bl. Urea             |                            | 21 mgs%      |                  |                |  |
|  |   |      |                 |      | Serum Cholesterol      |             | 125 mgs%                  |             | Serum Cholesterol    |                            | 140 mgs%     |                  |                |  |
|  |   |      |                 |      | URINE                  |             |                           |             | URINE                |                            |              |                  |                |  |
|  | Rhonchi   | P    | Rhonchi         | A    | Albumin                |             | Nil                       |             | Albumin              |                            | Nil          |                  |                |  |
|  |   |      |                 |      | Sugar                  |             | Nil                       |             | Sugar                |                            | Nil          |                  |                |  |
|  | RR  | 25/M | RR              | 20/M | Deposits               |             | 1-3 epithelial cells /HPF |             | Deposits             |                            | NAD          |                  |                |  |
|  |   |      |                 |      | PEFR                   |             | 60 lits/min               |             | PEFR                 |                            | 260 lits/min |                  |                |  |
|  |   |      |                 |      | CHEST X – RAY          |             | Normal                    |             | Response             | Good , No adverse effects. |              |                  |                |  |
| SPUTUM FOR AFB   |   |      |                 |      | Negative               |             |                           |             |                      |                            |              |                  |                |  |
| MANTOUX  |   |      |                 |      | Negative               |             |                           |             |                      |                            |              |                  |                |  |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms



## OUT-PATIENTS

|  |   |      |                 |       |                        |            |              |             |                      |                            |              |                  |                |  |
|--|---|------|-----------------|-------|------------------------|------------|--------------|-------------|----------------------|----------------------------|--------------|------------------|----------------|--|
| 27. Name   | Kalavathi   |      |                 | Age : | 40                     | Sex :      | F            | O.P.No      | : 91031              | No. of Days Treated :      | 26           | From: 10.11.2012 | To: 06.12.2012 |  |
| Drug :   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |       |                        |            |              | Diagnosis : | Eraippu erumal       |                            | Occupation : | Business         | Veg diet       |  |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |       | Investigations         |            |              |             |                      |                            |              |                  |                |  |
|  | Before Treatment  |      | After Treatment |       | Before Treatment       |            |              |             | After Treatment      |                            |              |                  |                |  |
| Cough without expectoration difficulty in breathing tightness of chest since 4years<br>No family history present | Cough   | P    | Cough           | A     | BLOOD                  |            |              |             | BLOOD                |                            |              |                  |                |  |
|  |   |      |                 |       | TC - 9000 cells / cumm |            |              |             | TC - 8700 Cells/cumm |                            |              |                  |                |  |
|  |   |      |                 |       | DC                     | P - 48%    | L- 48%       | E - 4%      | DC                   | P - 60%                    | L - 38%      | E - 2%           |                |  |
|  | Sputum  | W    | Sputum          | A     | ESR                    | ½ hr - 2mm |              | 1 hr - 4mm  |                      | ESR                        | ½ hr - 1mm   |                  | 1 hr - 2mm     |  |
|  |   |      |                 |       | Hb                     |            | 80%          |             | Hb                   |                            | 76%          |                  |                |  |
|  |   |      |                 |       | Bl.Sugar (R)           |            | 78 mgs%      |             | Bl.Sugar ( R )       |                            | 98mgs%       |                  |                |  |
|  | Breathlessness  | P    | Breathlessness  | A     | Bl. Urea               |            | 14 mgs%      |             | Bl. Urea             |                            | 20 mgs%      |                  |                |  |
|  |   |      |                 |       | Serum Cholesterol      |            | 151 mgs%     |             | Serum Cholesterol    |                            | 160mgs%      |                  |                |  |
|  |   |      |                 |       | URINE                  |            |              |             | URINE                |                            |              |                  |                |  |
|  | Rhonchi   | P    | Rhonchi         | A     | Albumin                |            | NIL          |             | Albumin              |                            | Nil          |                  |                |  |
|  |   |      |                 |       | Sugar                  |            | NIL          |             | Sugar                |                            | Nil          |                  |                |  |
|  | RR  | 28/M | RR              | 19/M  | Deposits               |            | NAD          |             | Deposits             |                            | NAD          |                  |                |  |
|  |   |      |                 |       | PEFR                   |            | 190 lits/min |             | PEFR                 |                            | 330 lits/min |                  |                |  |
|  |   |      |                 |       | CHEST X – RAY          |            | Bronchitis   |             | Response             | Good , No adverse effects. |              |                  |                |  |
| SPUTUM FOR AFB   |   |      |                 |       | Negative               |            |              |             |                      |                            |              |                  |                |  |
| MANTOUX  |   |      |                 |       | Negative               |            |              |             |                      |                            |              |                  |                |  |

|  |   |      |                 |      |                        |            |                      |             |                      |                           |             |                  |                |  |
|--|---|------|-----------------|------|------------------------|------------|----------------------|-------------|----------------------|---------------------------|-------------|------------------|----------------|--|
| 28. Name   | Ramesh  |      |                 | Age: | 28                     | Sex :      | M                    | O.P.No      | : 91032              | No. of Days Treated :     | 24          | From: 10.11.2012 | To: 04.12.2012 |  |
| Drug:  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |            |                      | Diagnosis : | Eraippu erumal       |                           | Occupation: | Coolie           | Mixed diet     |  |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |      | Investigations         |            |                      |             |                      |                           |             |                  |                |  |
|  | Before Treatment  |      | After Treatment |      | Before Treatment       |            |                      |             | After Treatment      |                           |             |                  |                |  |
| Difficulty in breathing , wheezing, cough without expectoration, sneezing, headache since 2 years. | Cough   | P    | Cough           | A    | BLOOD                  |            |                      |             | BLOOD                |                           |             |                  |                |  |
|  |   |      |                 |      | TC - 9000 cells / cumm |            |                      |             | TC - 9500 Cells/cumm |                           |             |                  |                |  |
|  |   |      |                 |      | DC                     | P - 54%    | L - 39%              | E - 7%      | DC                   | P - 64%                   | L - 34%     | E - 2%           |                |  |
|  | Sputum  | W    | Sputum          | A    | ESR                    | ½ hr - 6mm |                      | 1 hr - 12mm |                      | ESR                       | ½ hr - 3mm  |                  | 1 hr - 8mm     |  |
|  |   |      |                 |      | Hb                     |            | 76%                  |             | Hb                   |                           | 68%         |                  |                |  |
|  |   |      |                 |      | Bl.Sugar (R)           |            | 69 mgs%              |             | Bl.Sugar ( R )       |                           | 74 mgs%     |                  |                |  |
|  | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |            | 30 mgs%              |             | Bl. Urea             |                           | 28 mgs%     |                  |                |  |
|  |   |      |                 |      | Serum Cholesterol      |            | 109 mgs%             |             | Serum Cholesterol    |                           | 125 mgs%    |                  |                |  |
|  |   |      |                 |      | URINE                  |            |                      |             | URINE                |                           |             |                  |                |  |
|  | Rhonchi   | P    | Rhonchi         | A    | Albumin                |            | Nil                  |             | Albumin              |                           | Nil         |                  |                |  |
|  |   |      |                 |      | Sugar                  |            | Nil                  |             | Sugar                |                           | Nil         |                  |                |  |
|  | RR  | 28/M | RR              | 19/M | Deposits               |            | 0-1 epithelial cells |             | Deposits             |                           | NAD         |                  |                |  |
|  |   |      |                 |      | PEFR                   |            | 150 lits/min         |             | PEFR                 |                           | 310lits/min |                  |                |  |
|  |   |      |                 |      | CHEST X – RAY          |            | Normal               |             | Response             | Good, No adverse effects. |             |                  |                |  |
| SPUTUM FOR AFB   |   |      |                 |      | Negative               |            |                      |             |                      |                           |             |                  |                |  |
| MANTOUX  |   |      |                 |      | Negative               |            |                      |             |                      |                           |             |                  |                |  |

|  |   |      |                 |         |                        |            |                      |                           |             |                       |                |                  |                |            |         |  |
|--|---|------|-----------------|---------|------------------------|------------|----------------------|---------------------------|-------------|-----------------------|----------------|------------------|----------------|------------|---------|--|
| 28. Name   | Ramesh  |      |                 | Age:    | 28                     | Sex :      | M                    | O.P.No                    | 91032       | No. of Days Treated : | 24             | From: 10.11.2012 | To: 04.12.2012 |            |         |  |
| Drug:  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |         |                        |            |                      | Diagnosis :               |             |                       | Eraippu erumal | Occupation:      | Coolie         | Mixed diet |         |  |
| Complaints & Duration  | Respiratory System Examination                                    |      |                 |         | Investigations         |            |                      |                           |             |                       |                |                  |                |            |         |  |
|  | Before Treatment  |      | After Treatment |         | Before Treatment       |            |                      |                           |             | After Treatment       |                |                  |                |            |         |  |
| Difficulty in breathing , wheezing, cough without expectoration, sneezing, headache since 2 years. | Cough   | P    | Cough           | A       | BLOOD                  |            |                      |                           |             | BLOOD                 |                |                  |                |            |         |  |
|  |   |      |                 |         | TC - 9000 cells / cumm |            |                      |                           |             | TC - 9500 Cells/cumm  |                |                  |                |            |         |  |
|  |   |      |                 |         | DC                     | P - 54%    |                      | L - 39%                   |             | E - 7%                |                | DC               | P - 64%        |            | L - 34% |  |
|  | Sputum  | W    | Sputum          | A       | ESR                    | ½ hr - 6mm |                      | 1 hr - 12mm               |             |                       | ESR            | ½ hr - 3mm       |                | 1 hr - 8mm |         |  |
|  |   |      |                 |         | Hb                     |            | 76%                  |                           |             | Hb                    |                | 68%              |                |            |         |  |
|  |   |      |                 |         | Bl.Sugar (R)           |            | 69 mgs%              |                           |             | Bl.Sugar ( R )        |                | 74 mgs%          |                |            |         |  |
|  | Breathlessness  | P    | Breathlessness  | A       | Bl. Urea               |            | 30 mgs%              |                           |             | Bl. Urea              |                | 28 mgs%          |                |            |         |  |
|  |   |      |                 |         | Serum Cholesterol      |            | 109 mgs%             |                           |             | Serum Cholesterol     |                | 125 mgs%         |                |            |         |  |
|  |   |      |                 |         | URINE                  |            |                      |                           |             | URINE                 |                |                  |                |            |         |  |
|  | Rhonchi   | P    | Rhonchi         | A       | Albumin                |            | Nil                  |                           |             | Albumin               |                | Nil              |                |            |         |  |
|  |   |      |                 |         | Sugar                  |            | Nil                  |                           |             | Sugar                 |                | Nil              |                |            |         |  |
|  | RR  | 28/M | RR              | 19/M    | Deposits               |            | 0-1 epithelial cells |                           |             | Deposits              |                | NAD              |                |            |         |  |
| PEFR   |   |      |                 |         | 150 lits/min           |            | PEFR                 |                           | 310lits/min |                       |                |                  |                |            |         |  |
| CHEST X – RAY  |   |      |                 |         | Normal                 |            | Response             | Good, No adverse effects. |             |                       |                |                  |                |            |         |  |
| SPUTUM FOR AFB   |   |      |                 |         | Negative               |            |                      |                           |             |                       |                |                  |                |            |         |  |
|  |   |      |                 | MANTOUX |                        |            | Negative             |                           |             |                       |                |                  |                |            |         |  |

A Absent   R Reduced   P Present  
W Whitish   Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms

## OUT-PATIENTS

|   |   |       |                 |       |                        |             |                      |                           |                      |                 |               |        |             |  |
|---|---|-------|-----------------|-------|------------------------|-------------|----------------------|---------------------------|----------------------|-----------------|---------------|--------|-------------|--|
| 29. Name  | Selvi   | Age : | 30              | Sex : | F                      | O.P.No :    | 95258                | No. of Days Treated :     | 24                   | From:23.11.2012 | To:17.12.2012 |        |             |  |
| Drug :  | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |       |                 |       |                        | Diagnosis : | Eraippu erumal       |                           | Occupation :         | Beedi worker    | Mixed diet    |        |             |  |
| Complaints & Duration                                     | Respiratory System Examination                                    |       |                 |       | Investigations         |             |                      |                           |                      |                 |               |        |             |  |
|   | Before Treatment  |       | After Treatment |       | Before Treatment       |             |                      |                           | After Treatment      |                 |               |        |             |  |
| Wheezing, tightness of chest, breathlessness since 1 year | Cough   | P     | Cough           | A     | BLOOD                  |             |                      |                           | BLOOD                |                 |               |        |             |  |
|   |   |       |                 |       | TC - 8800 cells / cumm |             |                      |                           | TC - 9500 Cells/cumm |                 |               |        |             |  |
|   |   |       |                 |       | DC                     | P - 70%     | L- 25%               | E - 5%                    | DC                   | P - 76%         | L - 22%       | E - 2% |             |  |
|   | Sputum  | W     | Sputum          | A     | ESR                    | ½ hr - 19mm |                      | 1 hr - 18mm               |                      | ESR             | ½ hr - 6mm    |        | 1 hr - 12mm |  |
|   |   |       |                 |       | Hb                     |             | 68%                  |                           | Hb                   |                 | 76%           |        |             |  |
|   |   |       |                 |       | Bl.Sugar (R)           |             | 68mgs%               |                           | Bl.Sugar ( R )       |                 | 76 mgs%       |        |             |  |
|   | Breathlessness  | P     | Breathlessness  | A     | Bl. Urea               |             | 15 mgs%              |                           | Bl. Urea             |                 | 22 mgs%       |        |             |  |
|   |   |       |                 |       | Serum Cholesterol      |             | 181mgs%              |                           | Serum Cholesterol    |                 | 153mgs%       |        |             |  |
|   |   |       |                 |       | URINE                  |             |                      |                           | URINE                |                 |               |        |             |  |
|   | Rhonchi   | P     | Rhonchi         | A     | Albumin                |             | Nil                  |                           | Albumin              |                 | Nil           |        |             |  |
|   |   |       |                 |       | Sugar                  |             | Nil                  |                           | Sugar                |                 | Nil           |        |             |  |
|   | RR  | 34/M  | RR              | 19/M  | Deposits               |             | Occ epithelial cells |                           | Deposits             |                 | NAD           |        |             |  |
|   |   |       |                 |       | PEFR                   |             | 100 lits/min         |                           | PEFR                 |                 | 260 lits/min  |        |             |  |
| CHEST X – RAY   |   |       |                 |       | Normal                 |             | Response             | Good, No adverse effects. |                      |                 |               |        |             |  |
| SPUTUM FOR AFB  |   |       |                 |       | Negative               |             |                      |                           |                      |                 |               |        |             |  |
| MANTOUX   |   |       |                 |       | Negative               |             |                      |                           |                      |                 |               |        |             |  |

|   |   |      |                 |      |                        |            |                      |             |             |        |                      |       |                            |                       |             |  |                         |                |
|---|---|------|-----------------|------|------------------------|------------|----------------------|-------------|-------------|--------|----------------------|-------|----------------------------|-----------------------|-------------|--|-------------------------|----------------|
| 30.Name   | Ramalakshmi   |      |                 |      | Age:                   | 55         |                      | Sex :       | F           |        | O.P.No               | 95286 |                            | No. of Days Treated : | 24          |  | From:23.11.2012         | To: 17.12.2012 |
| Drug:   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |      |                 |      |                        |            |                      |             | Diagnosis : |        |                      |       | Eraippu erumal             |                       | Occupation: |  | Beedi worker mixed diet |                |
| Complaints & Duration   | Respiratory System Examination                                    |      |                 |      | Investigations         |            |                      |             |             |        |                      |       |                            |                       |             |  |                         |                |
|   | Before Treatment  |      | After Treatment |      | Before Treatment       |            |                      |             |             |        | After Treatment      |       |                            |                       |             |  |                         |                |
| Difficulty in breathing, chest tightness, wheezing, Cough without expectoration, pain in chest while coughing since 3 years | Cough   | P    | Cough           | A    | BLOOD                  |            |                      |             |             |        | BLOOD                |       |                            |                       |             |  |                         |                |
|   |   |      |                 |      | TC - 9500 cells / cumm |            |                      |             |             |        | TC - 9700 Cells/cumm |       |                            |                       |             |  |                         |                |
|   |   |      |                 |      | DC                     | P - 72%    |                      | L - 27%     |             | E - 1% |                      | DC    | P - 65%                    |                       | L - 33%     |  | E - 2%                  |                |
|   | Sputum  | W    | Sputum          | A    | ESR                    | ½ hr - 5mm |                      | 1 hr - 10mm |             | ESR    | ½ hr - 4mm           |       | 1 hr - 8mm                 |                       |             |  |                         |                |
|   |   |      |                 |      | Hb                     |            | 72%                  |             |             |        | Hb                   |       | 76%                        |                       |             |  |                         |                |
|   |   |      |                 |      | Bl.Sugar (R)           |            | 90 mgs%              |             |             |        | Bl.Sugar ( R )       |       | 100 mgs%                   |                       |             |  |                         |                |
|   | Breathlessness  | P    | Breathlessness  | A    | Bl. Urea               |            | 16mgs%               |             |             |        | Bl. Urea             |       | 30 mgs%                    |                       |             |  |                         |                |
|   |   |      |                 |      | Serum Cholesterol      |            | 180 mgs%             |             |             |        | Serum Cholesterol    |       | 180 mgs%                   |                       |             |  |                         |                |
|   |   |      |                 |      | URINE                  |            |                      |             |             |        | URINE                |       |                            |                       |             |  |                         |                |
|   | Rhonchi   | P    | Rhonchi         | A    | Albumin                |            | Nil                  |             |             |        | Albumin              |       | Nil                        |                       |             |  |                         |                |
|   |   |      |                 |      | Sugar                  |            | Nil                  |             |             |        | Sugar                |       | Nil                        |                       |             |  |                         |                |
|   | RR  | 28/M | RR              | 19/M | Deposits               |            | Few epithelial cells |             |             |        | Deposits             |       | NAD                        |                       |             |  |                         |                |
|   |   |      |                 |      | PEFR                   |            | 220 lits/min         |             |             |        | PEFR                 |       | 380lits/min                |                       |             |  |                         |                |
|   |   |      |                 |      | CHEST X – RAY          |            | Normal               |             |             |        | Response             |       | Good , No adverse effects. |                       |             |  |                         |                |
| SPUTUM FOR AFB  |   |      |                 |      | Negative               |            |                      |             |             |        |                      |       |                            |                       |             |  |                         |                |
| MANTOUX   |   |      |                 |      | Negative               |            |                      |             |             |        |                      |       |                            |                       |             |  |                         |                |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms

## OUT-PATIENTS

|  |   |       |                 |       |                        |             |                |                       |                      |                           |               |        |            |  |
|--|---|-------|-----------------|-------|------------------------|-------------|----------------|-----------------------|----------------------|---------------------------|---------------|--------|------------|--|
| 31. Name   | Muthu   | Age : | 32              | Sex : | F                      | O.P.No :    | 95351          | No. of Days Treated : | 21                   | From:24.11.2012           | To:15.12.2012 |        |            |  |
| Drug :   | Karpooora silasathu parpam 100mg bd a day with luck warm cow milk |       |                 |       |                        | Diagnosis : | Eraippu erumal |                       | Occupation :         | House wife                | Veg diet      |        |            |  |
| Complaints & Duration  | Respiratory System Examination                                    |       |                 |       | Investigations         |             |                |                       |                      |                           |               |        |            |  |
|  | Before Treatment  |       | After Treatment |       | Before Treatment       |             |                |                       | After Treatment      |                           |               |        |            |  |
| Cough without expectoration, sleeplessness chest tightness difficulty in breathing since 6months<br><br>History of similar complaints previously | Cough   | P     | Cough           | A     | BLOOD                  |             |                |                       | BLOOD                |                           |               |        |            |  |
|  |   |       |                 |       | TC - 8900 cells / cumm |             |                |                       | TC - 9100 Cells/cumm |                           |               |        |            |  |
|  |   |       |                 |       | DC                     | P - 66%     | L- 30%         | E - 4%                | DC                   | P - 67%                   | L - 31%       | E - 2% |            |  |
|  | Sputum  | W     | Sputum          | A     | ESR                    | ½ hr - 5mm  |                | 1 hr - 12mm           |                      | ESR                       | ½ hr - 3mm    |        | 1 hr - 8mm |  |
|  |   |       |                 |       | Hb                     |             | 64%            |                       | Hb                   |                           | 70%           |        |            |  |
|  |   |       |                 |       | Bl.Sugar (R)           |             | 60 mgs%        |                       | Bl.Sugar ( R )       |                           | 64 mgs%       |        |            |  |
|  | Breathlessness  | P     | Breathlessness  | A     | Bl. Urea               |             | 29 mgs%        |                       | Bl. Urea             |                           | 27 mgs%       |        |            |  |
|  |   |       |                 |       | Serum Cholesterol      |             | 174 mgs%       |                       | Serum Cholesterol    |                           | 174 mgs%      |        |            |  |
|  |   |       |                 |       | URINE                  |             |                |                       | URINE                |                           |               |        |            |  |
|  | Rhonchi   | P     | Rhonchi         | A     | Albumin                |             | Nil            |                       | Albumin              |                           | Nil           |        |            |  |
|  |   |       |                 |       | Sugar                  |             | Nil            |                       | Sugar                |                           | Nil           |        |            |  |
|  | RR  | 35/M  | RR              | 18/M  | Deposits               |             | NAD            |                       | Deposits             |                           | NAD           |        |            |  |
|  |   |       |                 |       | PEFR                   |             | 160 lits/min   |                       | PEFR                 |                           | 340 lits/min  |        |            |  |
|  |   |       |                 |       | CHEST X – RAY          |             | Normal         |                       | Response             | Good, No adverse effects. |               |        |            |  |
|  |   |       |                 |       | SPUTUM FOR AFB         |             | Negative       |                       |                      |                           |               |        |            |  |
|  |   |       |                 |       | MANTOUX                |             | Negative       |                       |                      |                           |               |        |            |  |

A Absent    R Reduced    P Present  
W Whitish    Y Yellowish

**Good Response** : Significant amelioration of signs & symptoms  
**Fair Response** : Partial amelioration of signs and symptoms  
**Poor response** : In significant amelioration of signs and symptoms

|   |                  |                  |                       |  |                    |                            |                               |  |
|---|------------------|------------------|-----------------------|--|--------------------|----------------------------|-------------------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                  |                  |                       |  |                    |                            | No.of days treated:<br><br>47 |  |
| Diagnosis: Azhal Keel Vayu  |                  |                  |                       |  |                    |                            |                               |  |
| Name: Chrishtobar   |                  |                  | Dietary               |  | Op No: 41565       | From: 04.06.2012           |                               |  |
| Age/Sex : 40/M Religion: Christian  |                  |                  | Habit: mixed          |  | 21.07.2012         |                            |                               |  |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 6 MONTHS WITH SWELLING                    |                  |                  |                       |  |                    |                            |                               |  |
|   | BeforeTreatment  |                  | After Treatment       |  | Investigation      |                            |                               |  |
|   | Right            | Left             | Right                 | Left   | Before Treatment   |                            | After Treatment               |  |
| 1. Pain   | +++              | +++              | 44cm                  | 43cm   | Blood              | Radiological Findings      | Blood                         | Radiological Findings  |
| 2. Stiffness  | +                | +                |                       |  | TC- 8600cells/cumm | 1. Sub chondral sclerosis. | TC- 8000cells/cumm            | 1. Sub chondral sclerosis.                                   |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- |                       |  | P- 61%             | 2. Soft tissue swelling.   | P- 57%                        | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |
| 4. Measurement  | +                | +                |                       |  | L- 35%             | 3. Joint space narrowing.  | L- 41%                        | IMPRESSION:  |
| 5. Tenderness   | +                | +                |                       |  | E -4%              | IMPRESSION:                | E- 2%                         |  |
| 6. Crepitation on movements   |                  |                  |                       |  | ESR                |                            | ESR                           |  |
| 7. Swelling   |                  |                  |                       |  | 1/2 hour-8 mm      |                            | 1/2 hour-2 mm                 |  |
| 8. Taking time to walk for 100 feet distance  | 69Sec            |                  |                       |  | 59Sec              |                            | 1 hour- 16mm                  |  |
|   |                  |                  | Hb%- 80%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- Nil |                    |                            | Hb%- 86%                      |  |
|   |                  |                  | Sugar (R)- 116 mgs%   |  |                    |                            | Sugar (R)- 116mgs%            |  |
|   |                  |                  | Urea-28 mgs%          |  |                    |                            | Urea-20 mgs%                  |  |
|   |                  |                  | Cholesterol- 182 mgs% |  |                    |                            | Cholesterol- 176 mgs%         |  |
|   |                  |                  |                       |  |                    |                            |                               | Fair Response  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|  |                 |      |                 |      |  |                            |   |  |     |
|--|-----------------|------|-----------------|------|--|----------------------------|---|--|-----|
| rug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water   |                 |      |                 |      |  |                            |   | No.of days treated:<br><br>47                  |     |
| Diagnosis: Azhal Keel Vayu   |                 |      |                 |      |  |                            |   |  |     |
| Name: Gandhimathi  |                 |      | Dietary         |      | Op No: 41566   |                            | From:04.06.2012   |  | To: |
| Age/Sex : 48/F    Religion: HINDU  |                 |      | Habit: MIXED    |      | 21.07.2012   |                            |   |  |     |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 4 MONTHS                                      |                 |      |                 |      |  |                            |   |  |     |
|  | BeforeTreatment |      | After Treatment |      | Investigation  |                            |   |  |     |
|  | Right           | Left | Right           | Left | Before Treatment   |                            | After Treatment   |  |     |
| 1. Pain  | +               | +++  | -               | -    | Blood  | Radiological Findings      | Blood   | Radiological Findings                          |     |
|  |                 |      |                 |      | TC- 9400 c/cumm  | 1. Sub chondral sclerosis. | TC- 8300 cells/cumm   | 1. Sub chondral sclerosis.                     |     |
| 2. Stiffness   | -               | -    | -               | -    | P- 68%   | 2. Soft tissue swelling.   | P- 60%  | 2. Reduced Soft tissue swelling.               |     |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> ) | -               | -    | -               | -    | L-30%  | 3. Joint space narrowing.  | L-37%   | 3. Joint space narrowing<br><b>IMPRESSION:</b> |     |
| 4. Measurement   | +               | ++   | +               | +    |  |                            |   |  |     |
| 5. Tenderness  | -               | -    | -               | -    | E- 2%  | <b>IMPRESSION:</b>         | E-3%  |  |     |
| 6. Crepitation on movements  |                 |      |                 |      | ESR  | OA CHANGES                 | ESR   |  |     |
| 7. Swelling  |                 |      |                 |      | 1/2 hour-16 mm   |                            | 1/2 hour-6 mm   |  |     |
| 8. Taking time to walk for 100 feet distance   | 54Sec           |      | 43Sec           |      | 1 hour- 30 mm  |                            | 1 hour- 12 mm   |  |     |
| Hb%- 78%   |                 |      |                 |      | <b>Urine:</b><br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells | Hb%- 86%                   | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |  |     |
| Sugar (R)-120 mgs%   |                 |      |                 |      |  | Sugar (R)-120 mgs%         |   |  |     |
| Urea-32 mgs%   |                 |      |                 |      |  | Urea-26 mgs%               |   |  |     |
| Cholesterol-196 mgs%   |                 |      |                 |      |  | Cholesterol-180 mgs%       |   |  |     |
|  |                 |      |                 |      |  |                            |   | <b>Good Response</b>                           |     |

+Mild - ++Moderate - +++Severe      Good Response - Complete relief of signs and symptoms  
 Fair response -      Partial relief of signs and symptoms      Poor response - No relief of signs and symptoms

|   |                 |             |                       |  |                    |                                   |                    |  |
|---|-----------------|-------------|-----------------------|--|--------------------|-----------------------------------|--------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                 |             |                       |  |                    |                                   |                    | No.of days treated:<br><br>46                                |
| Diagnosis: Azhal Keel Vayu  |                 |             |                       |  |                    |                                   |                    |  |
| Name: HAJAMAIDHEEN  |                 |             |                       | Dietary  |                    | Op No: 41841 From: 05.06.2012 To: |                    |  |
| Age/Sex : 60/M Religion: Muslim   |                 |             |                       | Habit: mixed   |                    | 21.07.2012                        |                    |  |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 3 MONTHS WITH SWELLING                    |                 |             |                       |  |                    |                                   |                    |  |
|   | BeforeTreatment |             | After Treatment       |  | Investigation      |                                   |                    |  |
|   | Right           | Left        | Right                 | Left   | Before Treatment   |                                   | After Treatment    |  |
| 1. Pain   | ++              | ++          | 44cm                  | 43cm   | Blood              | Radiological Findings             | Blood              | Radiological Findings  |
| 2. Stiffness  | +               | +           |                       |  | TC- 9600cells/cumm | 1. Sub chondral sclerosis.        | TC- 8000cells/cumm | 1. Sub chondral sclerosis.                                   |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm     | I<br>44.5cm |                       |  | P- 58%             | 2. Soft tissue swelling.          | P- 57%             | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |
| 4. Measurement  | +               | +           |                       |  | L- 40%             | 3. Joint space narrowing.         | L- 41%             | IMPRESSION:  |
| 5. Tenderness   | +               | +           |                       |  | E -2%              | IMPRESSION:                       | E- 2%              |  |
| 6. Crepitation on movements   |                 |             |                       |  | ESR                |                                   | ESR                |  |
| 7. Swelling   |                 |             |                       |  | 1/2 hour-12mm      |                                   | 1/2 hour-2 mm      |  |
| 8. Taking time to walk for 100 feet distance  | 69Sec           |             |                       |  | 59Sec              | 1 hour- 24 mm                     |                    | 1 hour-4 mm  |
|   |                 |             | Hb%- 76%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- Nil |                    | Hb%- 80%                          |                    |  |
|   |                 |             | Sugar (R)- 132 mgs%   |  |                    | Sugar (R)- 126mgs%                |                    |  |
|   |                 |             | Urea-26 mgs%          |  |                    | Urea-24 mgs%                      |                    |  |
|   |                 |             | Cholesterol- 220 mgs% |  |                    | Cholesterol- 176 mgs%             |                    |  |
|   |                 |             |                       |  |                    |                                   | Fair Response      |  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|   |                 |      |                 |      |  |  |                     |   |
|---|-----------------|------|-----------------|------|--|--|---------------------|---|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                 |      |                 |      |  |  |                     | No.of days treated:<br><br>45                                 |
| Diagnosis: Azhal Keel Vayu  |                 |      |                 |      |  |  |                     |   |
| Name: FRANSIS   |                 |      | Dietary         |      | Op No: 42101      From: 06.06.2012   To: |  |                     |   |
| Age/Sex : 42/M   Religion: Christian  |                 |      | Habit: MIXED    |      | 21.07.2012                               |  |                     |   |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 2 MONTHS                                   |                 |      |                 |      |  |  |                     |   |
|   | BeforeTreatment |      | After Treatment |      | Investigation                            |  |                     |   |
|   | Right           | Left | Right           | Left | Before Treatment                         |  | After Treatment     |   |
|   |                 |      |                 |      | Blood                                    | Radiological Findings  | Blood               | Radiological Findings   |
| 1. Pain   | +++             | +++  | -               | -    |  | 1. Sub chondral sclerosis.   | TC- 8300 cells/cumm | 1. Sub chondral sclerosis.                                    |
| 2. Stiffness  | -               | -    | -               | -    | TC- 9800 c/cumm                          |  |                     |   |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> ) | -               | -    | -               | -    | P- 65%                                   | 2. Soft tissue swelling.   | P- 60%              | 2. Reduced Soft tissue swelling.                              |
| 4. Measurement  | ++              | ++   | +               | +    |  |  |                     | 3. Joint space narrowing                                      |
| 5. Tenderness   | -               | -    | -               | -    | L-31%                                    | 3. Joint space narrowing.  | L-37%               | <b>IMPRESSION:</b>  |
| 6. Crepitation on movements   |                 |      |                 |      | E- 4%                                    | <b>IMPRESSION:</b>   | E-3%                |   |
| 7. Swelling   |                 |      |                 |      | ESR                                      | OA CHANGES   | ESR                 |   |
|   |                 |      |                 |      | 1/2 hour-12 mm                           |  | 1/2 hour-1 mm       |   |
| 8. Taking time to walk for 100 feet distance  |                 |      |                 |      | 1 hour- 24 mm                            |  | 1 hour- 2 mm        |   |
|   | 54Sec           |      | 43Sec           |      | Hb%- 82%                                 | <b>Urine:</b><br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells | Hb%- 84%            | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |
| Sugar (R)-120 mgs%  |                 |      |                 |      | Sugar (R)-122 mgs%                       |  |                     |   |
| Urea-22 mgs%  |                 |      |                 |      | Urea-20 mgs%                             |  |                     |   |
| Cholesterol-180 mgs%  |                 |      |                 |      | Cholesterol-180 mgs%                     |  |                     |   |
|   |                 |      |                 |      |  |  |                     |   |
|   |                 |      |                 |      |  |  |                     | <b>Good Response</b>  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|  |                  |                  |                 |                       |   |                                   |   |  |
|--|------------------|------------------|-----------------|-----------------------|---|-----------------------------------|---|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |                  |                  |                 |                       |   |                                   |   | No.of days treated:<br><br>51                                |
| Diagnosis: Azhal Keel Vayu   |                  |                  |                 |                       |   |                                   |   |  |
| Name:NISHA   |                  |                  |                 | Dietary               |   | Op No: 42268 From: 06.06.2012 To: |   |  |
| Age/Sex : 52/F Religion: Muslim  |                  |                  |                 | Habit: VEG            |   | 01.08.2012                        |   |  |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 2 MONTHS WITH SWELLING                       |                  |                  |                 |                       |   |                                   |   |  |
|  | BeforeTreatment  |                  | After Treatment |                       | Investigation   |                                   |   |  |
|  | Right            | Left             | Right           | Left                  | Before Treatment  |                                   | After Treatment                                       |  |
| 1. Pain  | +++              | +                | 44cm            | 43cm                  | Blood   | Radiological Findings             | Blood   | Radiological Findings  |
| 2. Stiffness   | +                | +                |                 |                       | TC- 8400cells/cumm  | 1. Sub chondral sclerosis.        | TC- 8000cells/cumm                                    | 1. Sub chondral sclerosis.                                   |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- |                 |                       | P- 62%  | 2. Soft tissue swelling.          | P- 57%  | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |
| 4. Measurement   | ++               | +                |                 |                       | L- 36%  | 3. Joint space narrowing.         | L- 41%  | IMPRESSION:  |
| 5. Tenderness  | ++               | +                |                 |                       | E -2%   | IMPRESSION:                       | E- 2%   |  |
| 6. Creptitation on movements   |                  |                  |                 |                       | ESR   |                                   | ESR   |  |
| 7. Swelling  |                  |                  |                 |                       | 1/2 hour-18 mm  |                                   | 1/2 hour-2 mm   |  |
| 8. Taking time to walk for 100 feet distance   | 69Sec            |                  | 59Sec           | 1 hour- 34 mm         |   | 1 hour-4 mm                       | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |  |
|  |                  |                  |                 | Hb%- 70%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscells | Hb%- 80%                          |   |  |
|  |                  |                  |                 | Sugar (R)- 122 mgs%   |   | Sugar (R)- 116mgs%                |   |  |
|  |                  |                  |                 | Urea-28 mgs%          |   | Urea-20 mgs%                      |   |  |
|  |                  |                  |                 | Cholesterol- 186 mgs% |   | Cholesterol- 176 mgs%             |   |  |
|  |                  |                  |                 |                       |   |                                   | Fair Response   |  |

|                      |   |   |                      |                  |  |   |  |
|----------------------|---|---|----------------------|------------------|--|---|--|
| <b>+Mild</b>         | - | <b>++Moderate</b>                           | -                    | <b>+++Severe</b> | <b>Good Response</b>                   | - | <b>Complete relief of signs and symptoms</b> |
| <b>Fair response</b> | - | <b>Partial relief of signs and symptoms</b> | <b>Poor response</b> | -                | <b>No relief of signs and symptoms</b> |   |  |



|   |                 |      |                 |      |                      |   |                               |  |
|---|-----------------|------|-----------------|------|----------------------|---|-------------------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                 |      |                 |      |                      |   | No.of days treated:<br><br>47 |  |
| Diagnosis: Azhal Keel Vayu  |                 |      |                 |      |                      |   |                               |  |
| Name: PATHRAKALI  |                 |      | Dietary         |      | Op No: 45586         | From:19.06.2012 To:   |                               |  |
| Age/Sex : 60/F Religion: HINDU  |                 |      | Habit: MIXED    |      | 06.08.2012           |   |                               |  |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 1 YEAR                                     |                 |      |                 |      |                      |   |                               |  |
|   | BeforeTreatment |      | After Treatment |      | Investigation        |   |                               |  |
|   | Right           | Left | Right           | Left | Before Treatment     |   | After Treatment               |  |
|   |                 |      |                 |      | Blood                | Radiological Findings   | Blood                         | Radiological Findings                                  |
| 1. Pain   | +               | +++  | -               | -    |                      | 1. Sub chondral sclerosis.                                      | TC- 8300 cells/cumm           | 1. Sub chondral sclerosis.                             |
| 2. Stiffness  | -               | -    | -               | -    | TC- 9200 c/cumm      |   |                               |  |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> ) | -               | -    | -               | -    | P- 64%               | 2. Soft tissue swelling.  | P- 60%                        | 2. Reduced Soft tissue swelling.                       |
| 4. Measurement  | +               | ++   | +               | +    |                      |   |                               | 3. Joint space narrowing                               |
| 5. Tenderness   | +               | +    | -               | -    | L-30%                | 3. Joint space narrowing.                                       | L-37%                         | IMPRESSION:  |
| 6. Crepitation on movements   |                 |      |                 |      | E- 6%                | IMPRESSON:  | E-3%                          |  |
| 7. Swelling   |                 |      |                 |      | ESR                  | OA CHANGES  | ESR                           |  |
|   |                 |      |                 |      | 1/2 hour-22 mm       |   | 1/2 hour-1 mm                 |  |
| 8. Taking time to walk for 100 feet distance  |                 |      |                 |      | 1 hour- 40 mm        |   | 1 hour- 2 mm                  |  |
|   | 54Sec           |      | 43Sec           |      | Hb%- 72%             | Urine:<br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells | Hb%- 78%                      | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |
|   |                 |      |                 |      | Sugar (R)-126 mgs%   |   | Sugar (R)-120 mgs%            |  |
|   |                 |      |                 |      | Urea-28 mgs%         |   | Urea-24 mgs%                  |  |
|   |                 |      |                 |      | Cholesterol-220 mgs% |   | Cholesterol-180 mgs%          |  |
|   |                 |      |                 |      |                      |   |                               | Good Response  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|   |                 |             |                 |                       |   |                            |   |                                  |     |
|---|-----------------|-------------|-----------------|-----------------------|---|----------------------------|---|----------------------------------|-----|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                 |             |                 |                       |   |                            |   | No.of days treated:<br><br>41    |     |
| Diagnosis: Azhal Keel Vayu  |                 |             |                 |                       |   |                            |   |                                  |     |
| Name: BHAGAVATHIRAJAN   |                 |             | Dietary         |                       | Op No: 50761  |                            | From: 06.07.2012                                      |                                  | To: |
| Age/Sex : 60/M Religion: Hindu  |                 |             | Habit: VEG      |                       | 17.08.2012  |                            |   |                                  |     |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 3 YEARS WITH SWELLING                     |                 |             |                 |                       |   |                            |   |                                  |     |
|   | BeforeTreatment |             | After Treatment |                       | Investigation   |                            |   |                                  |     |
|   | Right           | Left        | Right           | Left                  | Before Treatment  |                            | After Treatment                                       |                                  |     |
| 1. Pain   | ++              | ++          | 44cm            | 43cm                  | Blood   | Radiological Findings      | Blood   | Radiological Findings            |     |
| 2. Stiffness  | +               | +           |                 |                       | TC-8400cells/cumm   | 1. Sub chondral sclerosis. | TC-8000cells/cumm                                     | 1. Sub chondral sclerosis.       |     |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm     | I<br>44.5cm |                 |                       | P- 52%  | 2. Soft tissue swelling.   | P- 57%  | 2. Reduced Soft tissue swelling. |     |
| 4. Measurement  | -               | -           |                 |                       |   |                            |   | 3. Joint space narrowing         |     |
| 5. Tenderness   | +               | +           |                 |                       | L- 40%  | 3. Joint space narrowing.  | L- 41%  | IMPRESSON:                       |     |
| 6. Crepitation on movements   | +               | +           |                 |                       | E -8%   | IMPRESSON:                 | E- 2%   |                                  |     |
| 7. Swelling   |                 |             |                 |                       | ESR   |                            | ESR   |                                  |     |
|   |                 |             |                 |                       | 1/2 hour-16 mm  |                            | 1/2 hour-12 mm  |                                  |     |
| 8. Taking time to walk for 100 feet distance  | 69Sec           |             | 59Sec           | 1 hour- 32mm          |   | 1 hour-24 mm               | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |                                  |     |
|   |                 |             |                 | Hb%- 80%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscells | Hb%- 84%                   |   |                                  |     |
|   |                 |             |                 | Sugar (R)- 132 mgs%   |   | Sugar (R)- 116mgs%         |   |                                  |     |
|   |                 |             |                 | Urea-32 mgs%          |   | Urea-20 mgs%               |   |                                  |     |
|   |                 |             |                 | Cholesterol- 226 mgs% |   | Cholesterol- 176 mgs%      |   |                                  |     |
|   |                 |             | Fair Response   |                       |   |                            |   |                                  |     |

|                      |   |   |                      |                  |  |   |  |
|----------------------|---|---|----------------------|------------------|--|---|--|
| <b>+Mild</b>         | - | <b>++Moderate</b>                           | -                    | <b>+++Severe</b> | <b>Good Response</b>                   | - | <b>Complete relief of signs and symptoms</b> |
| <b>Fair response</b> | - | <b>Partial relief of signs and symptoms</b> | <b>Poor response</b> | -                | <b>No relief of signs and symptoms</b> |   |  |

|   |                 |      |                 |      |                      |   |                      |  |
|---|-----------------|------|-----------------|------|----------------------|---|----------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                 |      |                 |      |                      |   |                      | No.of days treated:<br><br>44                          |
| Diagnosis: Azhal Keel Vayu  |                 |      |                 |      |                      |   |                      |  |
| Name: Shanmugasundari   |                 |      | Dietary         |      | Op No: 59450         | From:03.08.2012   | To:                  |  |
| Age/Sex : 580/F Religion: HINDU   |                 |      | Habit: VEG      |      | 17.09.2012           |   |                      |  |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 3 YEARS                                    |                 |      |                 |      |                      |   |                      |  |
|   | BeforeTreatment |      | After Treatment |      | Investigation        |   |                      |  |
|   | Right           | Left | Right           | Left | Before Treatment     |   | After Treatment      |  |
|   |                 |      |                 |      | Blood                | Radiological Findings   | Blood                | Radiological Findings                                  |
| 1. Pain   | +++             | +    | -               | -    |                      | 1. Sub chondral sclerosis.                                      | TC- 8300 cells/cumm  | 1. Sub chondral sclerosis.                             |
| 2. Stiffness  | -               | -    | -               | -    | TC- 7400 c/cumm      |   |                      |  |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> ) | -               | -    | -               | -    | P- 60%               | 2. Soft tissue swelling.  | P- 60%               | 2. Reduced Soft tissue swelling.                       |
| 4. Measurement  | ++              | +    | +               | +    |                      |   |                      | 3. Joint space narrowing                               |
| 5. Tenderness   | +               | -    | -               | -    | L-34%                | 3. Joint space narrowing.                                       | L-37%                | IMPRESSION:  |
| 6. Crepitation on movements   |                 |      |                 |      | E- 4%                | IMPRESSON:  | E-3%                 |  |
| 7. Swelling   |                 |      |                 |      | ESR                  | OA CHANGES  | ESR                  |  |
|   |                 |      |                 |      | 1/2 hour-10 mm       |   | 1/2 hour-4 mm        |  |
| 8. Taking time to walk for 100 feet distance  |                 |      |                 |      | 1 hour- 20 mm        |   | 1 hour- 8 mm         |  |
|   | 54Sec           |      | 43Sec           |      | Hb%- 76%             | Urine:<br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells | Hb%- 78%             | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |
|   |                 |      |                 |      | Sugar (R)-120 mgs%   |   | Sugar (R)-120 mgs%   |  |
|   |                 |      |                 |      | Urea-26 mgs%         |   | Urea-24 mgs%         |  |
|   |                 |      |                 |      | Cholesterol-180 mgs% |   | Cholesterol-180 mgs% |  |
|   |                 |      |                 |      |                      |   |                      |  |
|   |                 |      |                 |      |                      |   |                      | Good Response  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|  |                  |                  |                       |   |                       |   |                    |  |
|--|------------------|------------------|-----------------------|---|-----------------------|---|--------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |                  |                  |                       |   |                       |   |                    | No.of days treated:<br><br>43                                |
| Diagnosis: Azhal Keel Vayu   |                  |                  |                       |   |                       |   |                    |  |
| Name: Dheiva Nayagampillai   |                  |                  |                       | Dietary   |                       | Op No: 61003 From: 09.08.2012                         |                    |  |
| Age/Sex : 60/M Religion: Hindu   |                  |                  |                       | Habit: MIXED  |                       | To: 22.09.2012  |                    |  |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 10 YEARS WITH SWELLING                       |                  |                  |                       |   |                       |   |                    |  |
|  | BeforeTreatment  |                  | After Treatment       |   | Investigation         |   |                    |  |
|  | Right            | Left             | Right                 | Left  | Before Treatment      |   | After Treatment    |  |
| 1. Pain  | ++               | ++               | 44cm                  | 43cm  | Blood                 | Radiological Findings                                 | Blood              | Radiological Findings  |
| 2. Stiffness   | +                | +                |                       |   | TC- 9200cells/cumm    | 1. Sub chondral sclerosis.                            | TC- 9600cells/cumm | 1. Sub chondral sclerosis.                                   |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- |                       |   | P- 58%                | 2. Soft tissue swelling.                              | P- 57%             | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |
| 4. Measurement   | +                | +                |                       |   | L- 40%                | 3. Joint space narrowing.                             | L- 41%             | IMPRESSION:  |
| 5. Tenderness  | +                | +                |                       |   | E -2%                 | IMPRESSION:   | E- 2%              |  |
| 6. Crepitation on movements  |                  |                  |                       |   | ESR                   |   | ESR                |  |
| 7. Swelling  |                  |                  |                       |   |                       |   |                    |  |
|  |                  |                  |                       |   | 1/2 hour-12 mm        |   | 1/2 hour-2 mm      |  |
| 8. Taking time to walk for 100 feet distance   | 69Sec            | 59Sec            | 1 hour- 22 mm         |   | 1 hour-4 mm           | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |                    |  |
|  |                  |                  | Hb%- 72%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscells | Hb%- 84%              |   |                    |  |
|  |                  |                  | Sugar (R)- 126 mgs%   |   | Sugar (R)- 116mgs%    |   |                    |  |
|  |                  |                  | Urea-30 mgs%          |   | Urea-20 mgs%          |   |                    |  |
|  |                  |                  | Cholesterol- 218 mgs% |   | Cholesterol- 176 mgs% |   |                    |  |
|  |                  |                  |                       |   | Fair Response         |   |                    |  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|   |                 |      |                 |      |                      |  |                               |   |
|---|-----------------|------|-----------------|------|----------------------|--|-------------------------------|---|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                 |      |                 |      |                      |  | No.of days treated:<br><br>40 |   |
| Diagnosis: Azhal Keel Vayu  |                 |      |                 |      |                      |  |                               |   |
| Name: Thiagarajan   |                 |      | Dietary         |      | Op No: 63206         | From:17.08.2012 To:  |                               |   |
| Age/Sex : 60/M     Religion: HINDU  |                 |      | Habit: MIXED    |      | 27.09.2012           |  |                               |   |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 1 YEAR                                     |                 |      |                 |      |                      |  |                               |   |
|   | BeforeTreatment |      | After Treatment |      | Investigation        |  |                               |   |
|   | Right           | Left | Right           | Left | Before Treatment     |  | After Treatment               |   |
|   |                 |      |                 |      | Blood                | Radiological Findings  | Blood                         | Radiological Findings   |
| 1. Pain   | +               | +++  | -               | -    |                      |  |                               |   |
| 2. Stiffness  | -               | -    | -               | -    | TC- 8400 c/cumm      | 1. Sub chondral sclerosis.   | TC- 8300 cells/cumm           | 1. Sub chondral sclerosis.                                    |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> ) | -               | -    | -               | -    | P- 60%               | 2. Soft tissue swelling.   | P- 60%                        | 2. Reduced Soft tissue swelling.                              |
| 4. Measurement  | +               | ++   | +               | +    |                      |  |                               | 3. Joint space narrowing                                      |
| 5. Tenderness   | -               | ++   | -               | -    | L-36%                | 3. Joint space narrowing.  | L-37%                         | <b>IMPRESSION:</b>  |
| 6. Crepitation on movements   |                 |      |                 |      | E- 4%                | <b>IMPRESSION:</b>   | E-3%                          |   |
| 7. Swelling   |                 |      |                 |      | ESR                  | OA CHANGES   | ESR                           |   |
|   |                 |      |                 |      | 1/2 hour-6 mm        |  | 1/2 hour-2 mm                 |   |
| 8. Taking time to walk for 100 feet distance  |                 |      |                 |      | 1 hour- 12 mm        |  | 1 hour- 4 mm                  |   |
|   | 54Sec           |      | 43Sec           |      | Hb%- 78%             | <b>Urine:</b><br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells | Hb%- 84%                      | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |
|   |                 |      |                 |      | Sugar (R)-126 mgs%   |  | Sugar (R)-120 mgs%            |   |
|   |                 |      |                 |      | Urea-28 mgs%         |  | Urea-22 mgs%                  |   |
|   |                 |      |                 |      | Cholesterol-178 mgs% |  | Cholesterol-180 mgs%          |   |
|   |                 |      |                 |      |                      |  |                               | <b>Good Response</b>  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms





|   |                  |                  |                       |   |                    |                            |                       |  |             |
|---|------------------|------------------|-----------------------|---|--------------------|----------------------------|-----------------------|--|-------------|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                  |                  |                       |   |                    |                            |                       | No.of days treated:<br><br>39                                |             |
| Diagnosis: Azhal Keel Vayu  |                  |                  |                       |   |                    |                            |                       |  |             |
| Name:Esakkiammal  |                  |                  | Dietary               |   | Op No: 68965       |                            | From: 05.09.2012      |  |             |
| Age/Sex : 45/F      Religion: Hindu   |                  |                  | Habit: MIXED          |   | To: 14.10.2012     |                            |                       |  |             |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 2 YEARS WITH SWELLING                     |                  |                  |                       |   |                    |                            |                       |  |             |
|   | BeforeTreatment  |                  | After Treatment       |   | Investigation      |                            |                       |  |             |
|   | Right            | Left             | Right                 | Left  | Before Treatment   |                            | After Treatment       |  |             |
| 1. Pain   | ++               | ++               | 44cm                  | 43cm  | Blood              | Radiological Findings      | Blood                 | Radiological Findings  |             |
| 2. Stiffness  | +                | +                |                       |   | TC- 7200cells/cumm | 1. Sub chondral sclerosis. | TC- 8000cells/cumm    | 1. Sub chondral sclerosis.                                   |             |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- |                       |   | P- 56%             | 2. Soft tissue swelling.   | P- 57%                | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |             |
| 4. Measurement  | +                | +                |                       |   | L- 38%             | 3. Joint space narrowing.  | L- 41%                | IMPRESSION:  |             |
| 5. Tenderness   | +                | +                |                       |   | E -6%              | IMPRESSION:                | E- 2%                 |  |             |
| 6. Crepitation on movements   |                  |                  |                       |   | ESR                |                            | ESR                   |  |             |
| 7. Swelling   |                  |                  |                       |   | 1/2 hour-12 mm     |                            | 1/2 hour-2 mm         |  |             |
| 8. Taking time to walk for 100 feet distance  | 69Sec            |                  |                       |   | 59Sec              |                            | 1 hour-14 mm          |  | 1 hour-4 mm |
|   |                  |                  | Hb%- 70%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscells |                    |                            | Hb%- 74%              |  |             |
|   |                  |                  | Sugar (R)- 126 mgs%   |   |                    |                            | Sugar (R)- 116mgs%    |  |             |
|   |                  |                  | Urea-28 mgs%          |   |                    |                            | Urea-20 mgs%          |  |             |
|   |                  |                  | Cholesterol- 180 mgs% |   |                    |                            | Cholesterol- 176 mgs% |  |             |
|   |                  |                  |                       |   |                    |                            |                       | Fair Response  |             |

+Mild - ++Moderate - +++Severe  
 Fair response - Partial relief of signs and symptoms - Complete relief of signs and symptoms - No relief of signs and symptoms



|  |  |                      |                 |       |  |                            |                      |   |
|--|--|----------------------|-----------------|-------|--|----------------------------|----------------------|---|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |  |                      |                 |       |  |                            |                      | No.of days treated:<br><br>48                                 |
| Diagnosis: Azhal Keel Vayu   |  |                      |                 |       |  |                            |                      |   |
| Name: Shanmugavadivu   |  |                      | Dietary         |       | Op No: 76102      From:26.09.2012    To: |                            |                      |   |
| Age/Sex : 60/F      Religion: HINDU  |  |                      | Habit: MIXED    |       | 14.11.2012                               |                            |                      |   |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 2 Yrs   |  |                      |                 |       |  |                            |                      |   |
|  | BeforeTreatment  |                      | After Treatment |       | Investigation                            |                            |                      |   |
|  | Right  | Left                 | Right           | Left  | Before Treatment                         |                            | After Treatment      |   |
| 1. Pain<br>2. Stiffness<br>3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> )<br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling<br>8. Taking time to walk for 100 feet distance | +++  | +++                  | -               | -     | Blood                                    | Radiological Findings      | Blood                | Radiological Findings   |
|  | -  | -                    | -               | -     | TC- 9800 c/cumm                          | 1. Sub chondral sclerosis. | TC- 8300 cells/cumm  | 1. Sub chondral sclerosis.                                    |
|  | -  | -                    | -               | -     | P- 64%                                   | 2. Soft tissue swelling.   | P- 60%               | 2. Reduced Soft tissue swelling.                              |
|  | -  | -                    | -               | -     |  |                            |                      | 3. Joint space narrowing                                      |
|  | ++   | ++                   | +               | +     | L-32%                                    | 3. Joint space narrowing.  | L-37%                | <b>IMPRESSION:</b>  |
|  | +  | +                    | -               | -     | E- 4%                                    | <b>IMPRESSION:</b>         | E-3%                 |   |
|  |  |                      |                 |       | ESR                                      | OA CHANGES                 | ESR                  |   |
|  |  |                      |                 |       | 1/2 hour-8 mm                            |                            | 1/2 hour-2 mm        |   |
|  |  | 54Sec                |                 | 43Sec |  |                            |                      | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |
|  | 1 hour- 16 mm  |                      |                 |       |  | 1 hour- 4 mm               |                      |   |
| Hb%- 72%   | <b>Urine:</b><br>Albumin- Nil<br>Sugar - Nil<br>Deposit -2-4 pus cells |                      |                 |       | Hb%- 78%                                 |                            |                      |   |
| Sugar (R)-130 mgs%   |  |                      |                 |       | Sugar (R)-120 mgs%                       |                            |                      |   |
| Urea-32 mgs%   |  |                      |                 |       | Urea-26 mgs%                             |                            |                      |   |
| Cholesterol-220 mgs%   |  | Cholesterol-186 mgs% |                 |       |  |                            |                      |   |
|  |  |                      |                 |       |  |                            | <b>Good Response</b> |   |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|  |                  |                  |                 |           |                       |  |                       |   |                  |     |
|--|------------------|------------------|-----------------|-----------|-----------------------|--|-----------------------|---|------------------|-----|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |                  |                  |                 |           |                       |  |                       | No.of days treated:<br><br>48                         |                  |     |
| Diagnosis: Azhal Keel Vayu   |                  |                  |                 |           |                       |  |                       |   |                  |     |
| Name: Murugesan  |                  |                  | Dietary         |           | Op No: 76099          |  |                       |   | From: 26.09.2012 | To: |
| Age/Sex : 48/M   |                  |                  | Habit: MIXED    |           | 14.11.2012            |  |                       |   |                  |     |
| Religion: Hindu  |                  |                  |                 |           |                       |  |                       |   |                  |     |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 1 ½ YEARS WITH SWELLING                      |                  |                  |                 |           |                       |  |                       |   |                  |     |
|  | BeforeTreatment  |                  | After Treatment |           | Investigation         |  |                       |   |                  |     |
|  | Right            | Left             | Right           | Left      | Before Treatment      |  | After Treatment       |   |                  |     |
| 1. Pain  | +++              | +                |                 |           | Blood                 | Radiological Findings  | Blood                 | Radiological Findings                                 |                  |     |
| 2. Stiffness   | +                | +                |                 |           | TC- 10200cells/cumm   | 1. Sub chondral sclerosis.                                   | TC- 10400cells/cumm   | 1. Sub chondral sclerosis.                            |                  |     |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- | 44cm<br>-       | 43cm<br>- | P- 62%                | 2. Soft tissue swelling.                                     | P- 60%                | 2. Reduced Soft tissue swelling.                      |                  |     |
| 4. Measurement   | ++               | +                | +               | +         | L- 36%                | 3. Joint space narrowing.                                    | L- 38%                | 3. Joint space narrowing                              |                  |     |
| 5. Tenderness  | +                | +                | -               | -         | E -2%                 | IMPRESSION:  | E- 2%                 | IMPRESSION:   |                  |     |
| 6. Crepitation on movements  |                  |                  |                 |           | ESR                   |  | ESR                   |   |                  |     |
| 7. Swelling  |                  |                  |                 |           | 1/2 hour-12 mm        |  | 1/2 hour-2 mm         |   |                  |     |
| 8. Taking time to walk for 100 feet distance   | 69Sec            |                  | 59Sec           |           | 1 hour- 24 mm         |  | 1 hour-4 mm           |   |                  |     |
|  |                  |                  |                 |           | Hb%- 68%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscels | Hb%- 78%              | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |                  |     |
|  |                  |                  |                 |           | Sugar (R)- 126 mgs%   |  | Sugar (R)- 116mgs%    |   |                  |     |
|  |                  |                  |                 |           | Urea-28 mgs%          |  | Urea-20 mgs%          |   |                  |     |
|  |                  |                  |                 |           | Cholesterol- 176 mgs% |  | Cholesterol- 176 mgs% |   |                  |     |
|  |                  |                  |                 |           |                       |  |                       | Fair Response   |                  |     |

+Mild      -      ++Moderate      - +++Severe Good Response      - Complete relief of signs and symptoms

Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|  |                 |      |                 |                      |  |                            |   |                                  |                               |
|--|-----------------|------|-----------------|----------------------|--|----------------------------|---|----------------------------------|-------------------------------|
| Drug : Mutsanganilai Chooranam 1,gm bd with Luke Warm Water  |                 |      |                 |                      | Diagnosis: Azhal Keel Vayu   |                            |   |                                  | No.of days treated:<br><br>46 |
| Name: Ramaiah  |                 |      | Dietary         |                      | Op No: 76816   |                            | From:28.09.2012 To:   |                                  |                               |
| Age/Sex : 55/M Religion: HINDU   |                 |      | Habit: MIXED    |                      | 14.11.2012   |                            |   |                                  |                               |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 5 YEARS   |                 |      |                 |                      |  |                            |   |                                  |                               |
|  | BeforeTreatment |      | After Treatment |                      | Investigation  |                            |   |                                  |                               |
|  | Right           | Left | Right           | Left                 | Before Treatment   |                            | After Treatment   |                                  |                               |
| 1. Pain<br>2. Stiffness<br>3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> )<br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling | +++             | +    | -               | -                    | Blood  | Radiological Findings      | Blood   | Radiological Findings            |                               |
|  | -               | -    | -               | -                    | TC- 8400 c/cumm  | 1. Sub chondral sclerosis. | TC- 8300 cells/cumm   | 1. Sub chondral sclerosis.       |                               |
|  | -               | -    | -               | -                    | P- 58%   | 2. Soft tissue swelling.   | P- 60%  | 2. Reduced Soft tissue swelling. |                               |
|  | -               | -    | -               | -                    |  |                            |   | 3. Joint space narrowing         |                               |
|  | ++              | +    | +               | +                    | L-36%  | 3. Joint space narrowing.  | L-37%   | <b>IMPRESSION:</b>               |                               |
|  | -               | -    | -               | -                    | E- 6%  | <b>IMPRESSION:</b>         | E-3%  |                                  |                               |
|  |                 |      |                 |                      | ESR  | OA CHANGES                 | ESR   |                                  |                               |
|  |                 |      |                 |                      | 1/2 hour-6 mm  |                            | 1/2 hour-1 mm   |                                  |                               |
| 8. Taking time to walk for 100 feet distance   | 54Sec           |      | 43Sec           |                      |  |                            | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |                                  |                               |
|  |                 |      |                 | 1 hour- 12 mm        |  | 1 hour- 2 mm               |   |                                  |                               |
|  |                 |      |                 | Hb%- 70%             | <b>Urine:</b><br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells | Hb%- 78%                   |   |                                  |                               |
|  |                 |      |                 | Sugar (R)-126 mgs%   |  | Sugar (R)-122 mgs%         |   |                                  |                               |
|  |                 |      |                 | Urea-24 mgs%         |  | Urea-20 mgs%               |   |                                  |                               |
|  |                 |      |                 | Cholesterol-186 mgs% |  | Cholesterol-180 mgs%       |   |                                  |                               |
|  |                 |      |                 |                      | <b>Good Response</b>   |                            |   |                                  |                               |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms

Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|  |                  |                  |                       |   |                    |                            |                    |  |
|--|------------------|------------------|-----------------------|---|--------------------|----------------------------|--------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |                  |                  |                       |   |                    |                            |                    | No.of days treated:<br><br>47                                |
| Diagnosis: Azhal Keel Vayu   |                  |                  |                       |   |                    |                            |                    |  |
| Name:Sridhar   |                  |                  | Dietary               |   | Op No: 77962       |                            | From: 02.10.2012   |  |
| Age/Sex : 46/M Religion: Hindu   |                  |                  | Habit: VEG            |   | To: 19.11.2012     |                            |                    |  |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 6 MONTHS WITH SWELLING                       |                  |                  |                       |   |                    |                            |                    |  |
|  | BeforeTreatment  |                  | After Treatment       |   | Investigation      |                            |                    |  |
|  | Right            | Left             | Right                 | Left  | Before Treatment   |                            | After Treatment    |  |
| 1. Pain  | ++               | +                | 44cm                  | 43cm  | Blood              | Radiological Findings      | Blood              | Radiological Findings  |
| 2. Stiffness   | +                | +                |                       |   | TC- 9200cells/cumm | 1. Sub chondral sclerosis. | TC- 8600cells/cumm | 1. Sub chondral sclerosis.                                   |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- |                       |   | P- 60%             | 2. Soft tissue swelling.   | P- 57%             | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |
| 4. Measurement   | +                | +                |                       |   | L- 36%             | 3. Joint space narrowing.  | L- 41%             | IMPRESSION:  |
| 5. Tenderness  | +                | +                |                       |   | E -4%              | IMPRESSION:                | E- 2%              |  |
| 6. Crepitation on movements  |                  |                  |                       |   | ESR                |                            | ESR                |  |
| 7. Swelling  |                  |                  |                       |   | 1/2 hour-4 mm      |                            | 1/2 hour-2 mm      |  |
| 8. Taking time to walk for 100 feet distance   | 69Sec            |                  |                       |   | 59Sec              | 1 hour- 8 mm               |                    | 1 hour-4 mm  |
|  |                  |                  | Hb%- 68%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscells |                    | Hb%- 74%                   |                    |  |
|  |                  |                  | Sugar (R)- 122 mgs%   |   |                    | Sugar (R)- 116mgs%         |                    |  |
|  |                  |                  | Urea-24 mgs%          |   |                    | Urea-20 mgs%               |                    |  |
|  |                  |                  | Cholesterol- 170 mgs% |   |                    | Cholesterol- 176 mgs%      |                    |  |
|  |                  |                  |                       |   |                    |                            | Fair Response      |  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|  |                 |      |                         |      |  |  |                      |   |
|--|-----------------|------|-------------------------|------|--|--|----------------------|---|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |                 |      |                         |      |  |  |                      | No.of days treated:<br><br>52                                 |
| Diagnosis: Azhal Keel Vayu   |                 |      |                         |      |  |  |                      |   |
| Name: Kallathiyan<br>Age/Sex : 47/M<br>Religion: HINDU   |                 |      | Dietary<br>Habit: MIXED |      | Op No: 78765      From:04.10.12      To:<br>26.11.2012 |  |                      |   |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 6 MONTHS  |                 |      |                         |      |  |  |                      |   |
|  | BeforeTreatment |      | After Treatment         |      | Investigation  |  |                      |   |
|  | Right           | Left | Right                   | Left | Before Treatment                                       |  | After Treatment      |   |
|  |                 |      |                         |      | Blood  | Radiological Findings  | Blood                | Radiological Findings   |
| 1. Pain  | +++             | +++  | -                       | -    |  |  |                      |   |
| 2. Stiffness   | -               | -    | -                       | -    | TC- 8200 c/cumm  | 1. Sub chondral sclerosis.   | TC- 8300 cells/cumm  | 1. Sub chondral sclerosis.                                    |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> )   | -               | -    | -                       | -    | P- 62%   | 2. Soft tissue swelling.   | P- 60%               | 2. Reduced Soft tissue swelling.                              |
| 4. Measurement   | ++              | +    | +                       | +    |  |  |                      | 3. Joint space narrowing                                      |
| 5. Tenderness  | +               | +    | -                       | -    | L-34%  | 3. Joint space narrowing.  | L-37%                | <b>IMPRESSION:</b>  |
| 6. Crepitation on movements  |                 |      |                         |      | E- 4%  | <b>IMPRESSION:</b>   | E-3%                 |   |
| 7. Swelling  |                 |      |                         |      | ESR  | OA CHANGES   | ESR                  |   |
| 8. Taking time to walk for 100 feet distance   |                 |      |                         |      | 1/2 hour-12 mm   |  | 1/2 hour-2 mm        |   |
|  |                 |      |                         |      |  |  |                      |   |
|  | 54Sec           |      | 43Sec                   |      | 1 hour- 24 mm  |  | 1 hour- 4 mm         | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |
|  |                 |      |                         |      | Hb%- 68%   | <b>Urine:</b><br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells | Hb%- 78%             |   |
|  |                 |      |                         |      | Sugar (R)-128 mgs%                                     |  | Sugar (R)-122 mgs%   |   |
|  |                 |      |                         |      | Urea-26 mgs%   |  | Urea-20 mgs%         |   |
|  |                 |      |                         |      | Cholesterol-226 mgs%                                   |  | Cholesterol-180 mgs% |   |
|  |                 |      |                         |      |  |  |                      | <b>Good Response</b>  |
| <b>+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms</b><br><b>Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms</b> |                 |      |                         |      |  |  |                      |   |

|  |                  |                  |                       |   |                    |                            |                    |  |
|--|------------------|------------------|-----------------------|---|--------------------|----------------------------|--------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |                  |                  |                       |   |                    |                            |                    | No.of days treated:<br><br>49                                |
| Diagnosis: Azhal Keel Vayu   |                  |                  |                       |   |                    |                            |                    |  |
| Name: Ramaiah  |                  |                  | Dietary               |   | Op No: 81458       |                            | From: 12.10.2012   |  |
| Age/Sex : 50/M Religion: Hindu   |                  |                  | Habit: MIXED          |   | To:01.12.2012      |                            |                    |  |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 3YEARS WITH SWELLING                         |                  |                  |                       |   |                    |                            |                    |  |
|  | BeforeTreatment  |                  | After Treatment       |   | Investigation      |                            |                    |  |
|  | Right            | Left             | Right                 | Left  | Before Treatment   |                            | After Treatment    |  |
| 1. Pain  | +                | +++              | 44cm                  | 43cm  | Blood              | Radiological Findings      | Blood              | Radiological Findings  |
| 2. Stiffness   | +                | ++               |                       |   | TC- 8400cells/cumm | 1. Sub chondral sclerosis. | TC- 8600cells/cumm | 1. Sub chondral sclerosis.                                   |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- |                       |   | P- 64%             | 2. Soft tissue swelling.   | P- 60%             | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |
| 4. Measurement   | -                | +                |                       |   | L- 34%             | 3. Joint space narrowing.  | L- 38%             | IMPRESSION:  |
| 5. Tenderness  | -                | +                |                       |   | E -2%              | IMPRESSION:                | E- 2%              |  |
| 6. Crepitation on movements  |                  |                  |                       |   | ESR                |                            | ESR                |  |
| 7. Swelling  |                  |                  |                       |   | 1/2 hour-8 mm      |                            | 1/2 hour-2 mm      |  |
| 8. Taking time to walk for 100 feet distance   | 69Sec            |                  |                       |   | 59Sec              | 1 hour- 14 mm              |                    | 1 hour-4 mm  |
|  |                  |                  | Hb%- 60%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscells |                    | Hb%- 74%                   |                    |  |
|  |                  |                  | Sugar (R)- 130 mgs%   |   |                    | Sugar (R)- 126mgs%         |                    |  |
|  |                  |                  | Urea-30 mgs%          |   |                    | Urea-26 mgs%               |                    |  |
|  |                  |                  | Cholesterol- 210 mgs% |   |                    | Cholesterol- 186 mgs%      |                    |  |
|  |                  |                  |                       |   |                    |                            | Fair Response      |  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|   |                 |      |                 |      |   |                           |                 |  |
|---|-----------------|------|-----------------|------|---|---------------------------|-----------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                 |      |                 |      |   |                           |                 | No.of days treated:<br><br>48                          |
| Diagnosis: Azhal Keel Vayu  |                 |      |                 |      |   |                           |                 |  |
| Name: Mallika   |                 |      | Dietary         |      | Op No: 84848      From:24.10.2012 To:                           |                           |                 |  |
| Age/Sex :46/F      Religion: HINDU  |                 |      | Habit: MIXED    |      | 12.12.2012  |                           |                 |  |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 2 Yrs                                      |                 |      |                 |      |   |                           |                 |  |
|   | BeforeTreatment |      | After Treatment |      | Investigation   |                           |                 |  |
|   | Right           | Left | Right           | Left | Before Treatment  |                           | After Treatment |  |
|   |                 |      |                 |      | Blood   | Radiological Findings     | Blood           | Radiological Findings                                  |
| 1. Pain   | +++             | +    | -               | -    |   | 1. Sub chondral           | TC- 8300        | 1. Sub chondral  |
| 2. Stiffness  | -               | -    | -               | -    | TC- 8200 c/cumm   | sclerosis.                | cells/cumm      | sclerosis.   |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> ) | -               | -    | -               | -    | P- 58%  | 2. Soft tissue swelling.  | P- 60%          | 2. Reduced Soft tissue swelling.                       |
| 4. Measurement  | ++              | +    | +               | +    |   |                           |                 | 3. Joint space narrowing                               |
| 5. Tenderness   | -               | -    | -               | -    | L-38%   | 3. Joint space narrowing. | L-37%           | IMPRESSION:  |
| 6. Crepitation on movements   |                 |      |                 |      | E- 4%   | IMPRESSON:                | E-3%            |  |
| 7. Swelling   |                 |      |                 |      | ESR   | OA CHANGES                | ESR             |  |
| 8. Taking time to walk for 100 feet distance  |                 |      |                 |      | 1/2 hour-6 mm   |                           | 1/2 hour-4 mm   |  |
|   | 54Sec           |      | 43Sec           |      | 1 hour- 12 mm   |                           | 1 hour- 8 mm    | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |
| Hb%- 62%  |                 |      |                 |      |   | Hb%- 78%                  |                 |  |
| Sugar (R)-126 mgs%  |                 |      |                 |      | Urine:<br>Albumin- Nil<br>Sugar - Nil<br>Deposit -2-4 pus cells | Sugar (R)-120 mgs%        |                 |  |
| Urea-30 mgs%  |                 |      |                 |      |   | Urea-26 mgs%              |                 |  |
| Cholesterol-200 mgs%  |                 |      |                 |      |   | Cholesterol-180 mgs%      |                 |  |
|   |                 |      |                 |      |   |                           |                 | Good Response  |

**+Mild** - **++Moderate** - **+++Severe** **Good Response - Complete relief of signs and symptoms**  
**Fair response** - **Partial relief of signs and symptoms** **Poor response** - **No relief of signs and symptoms**

|  |                  |                  |                       |  |                               |                            |                       |  |
|--|------------------|------------------|-----------------------|--|-------------------------------|----------------------------|-----------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |                  |                  |                       |  |                               |                            |                       | No.of days treated:<br><br>47                                |
| Diagnosis: Azhal Keel Vayu   |                  |                  |                       |  |                               |                            |                       |  |
| Name: Ramathai   |                  |                  | Dietary               |  | Op No: 87023 From: 01.11.2012 |                            |                       |  |
| Age/Sex : 50/F Religion: Hindu   |                  |                  | Habit: MIXED          |  | To: 18.12.2012                |                            |                       |  |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 3 YEARS WITH SWELLING                        |                  |                  |                       |  |                               |                            |                       |  |
|  | BeforeTreatment  |                  | After Treatment       |  | Investigation                 |                            |                       |  |
|  | Right            | Left             | Right                 | Left   | Before Treatment              |                            | After Treatment       |  |
| 1. Pain  | ++               | ++               | 44cm                  | 43cm   | Blood                         | Radiological Findings      | Blood                 | Radiological Findings  |
| 2. Stiffness   | +                | +                |                       |  | TC- 7800cells/cumm            | 1. Sub chondral sclerosis. | TC- 8000cells/cumm    | 1. Sub chondral sclerosis.                                   |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- |                       |  | P- 60%                        | 2. Soft tissue swelling.   | P- 57%                | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |
| 4. Measurement   | +                | +                |                       |  | L- 38%                        | 3. Joint space narrowing.  | L- 41%                | IMPRESSION:  |
| 5. Tenderness  | +                | +                |                       |  | E -2%                         | IMPRESSION:                | E- 2%                 |  |
| 6. Crepitation on movements  |                  |                  |                       |  | ESR                           |                            | ESR                   |  |
| 7. Swelling  |                  |                  |                       |  | 1/2 hour-14 mm                |                            | 1/2 hour-2 mm         |  |
| 8. Taking time to walk for 100 feet distance   | 69Sec            |                  |                       |  | 59Sec                         |                            | 1 hour- 28 mm         |  |
|  |                  |                  | Hb%- 64%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscels |                               |                            | Hb%- 74%              |  |
|  |                  |                  | Sugar (R)- 120 mgs%   |  |                               |                            | Sugar (R)- 126mgs%    |  |
|  |                  |                  | Urea-28 mgs%          |  |                               |                            | Urea-24 mgs%          |  |
|  |                  |                  | Cholesterol- 186 mgs% |  |                               |                            | Cholesterol- 176 mgs% |  |
|  |                  |                  |                       |  |                               |                            |                       | Fair Response  |



+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|  |  |                      |                 |      |  |                            |                      |                                  |
|--|--|----------------------|-----------------|------|--|----------------------------|----------------------|----------------------------------|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |  |                      |                 |      |  |                            |                      | No.of days treated:<br><br>47    |
| Diagnosis: Azhal Keel Vayu   |  |                      |                 |      |  |                            |                      |                                  |
| Name: Abdulkhadar  |  |                      | Dietary         |      | Op No: 87027      From:01.11.2012    To: |                            |                      |                                  |
| Age/Sex : 55/M    Religion: MUSLIM   |  |                      | Habit: MIXED    |      | 18.12.2012                               |                            |                      |                                  |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 2 Yrs   |  |                      |                 |      |  |                            |                      |                                  |
|  | BeforeTreatment  |                      | After Treatment |      | Investigation                            |                            |                      |                                  |
|  | Right  | Left                 | Right           | Left | Before Treatment                         |                            | After Treatment      |                                  |
| 1. Pain<br>2. Stiffness<br>3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> )<br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling<br>8. Taking time to walk for 100 feet distance | +  | +++                  | -               | -    | Blood                                    | Radiological Findings      | Blood                | Radiological Findings            |
|  | -  | -                    | -               | -    | TC- 8200 c/cumm                          | 1. Sub chondral sclerosis. | TC- 8300 cells/cumm  | 1. Sub chondral sclerosis.       |
|  | -  | -                    | -               | -    | P- 56%                                   | 2. Soft tissue swelling.   | P- 60%               | 2. Reduced Soft tissue swelling. |
|  | -  | -                    | -               | -    |  |                            |                      | 3. Joint space narrowing         |
|  | -  | ++                   | +               | +    | L-38%                                    | 3. Joint space narrowing.  | L-37%                | <b>IMPRESSION:</b>               |
|  | -  | +                    | -               | -    | E- 6%                                    | <b>IMPRESSION:</b>         | E-3%                 |                                  |
|  |  |                      |                 |      |  |                            |                      |                                  |
|  |  |                      |                 |      | ESR                                      | OA CHANGES                 | ESR                  |                                  |
|  |  |                      |                 |      | 1/2 hour-10mm                            |                            | 1/2 hour-6 mm        |                                  |
|  |  | 54Sec                |                 |      | 43Sec                                    |                            |                      |                                  |
| 1 hour- 20 mm  |  |                      |                 |      |  | 1 hour- 12 mm              |                      |                                  |
| Hb%- 72%   | <b>Urine:</b><br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells |                      |                 |      |  | Hb%- 78%                   |                      |                                  |
| Sugar (R)-126 mgs%   |  |                      |                 |      |  | Sugar (R)-120 mgs%         |                      |                                  |
| Urea-26 mgs%   |  |                      |                 |      |  | Urea-22 mgs%               |                      |                                  |
| Cholesterol-228 mgs%   |  | Cholesterol-180 mgs% |                 |      |  |                            |                      |                                  |
|  |  |                      |                 |      |  |                            | <b>Good Response</b> |                                  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|   |                  |                  |                             |  |  |  |                    |  |
|---|------------------|------------------|-----------------------------|--|--|--|--------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                  |                  |                             |  |  |  |                    | No.of days treated:<br><br>45  |
| Diagnosis: Azhal Keel Vayu  |                  |                  |                             |  |  |  |                    |  |
| Name:Jamal<br><br>Age/Sex :50/M      Religion: Muslim   |                  |                  | Dietary<br><br>Habit: MIXED |  | Op No: 87866      From: 03.11.2012<br><br>To: 18.12.2012 |  |                    |  |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 2 YEARS WITH SWELLING                     |                  |                  |                             |  |  |  |                    |  |
|   | BeforeTreatment  |                  | After Treatment             |  | Investigation  |  |                    |  |
|   | Right            | Left             | Right                       | Left   | Before Treatment   |  | After Treatment    |  |
| 1. Pain   | +++              | +                | 44cm                        | 43cm   | Blood  | Radiological Findings  | Blood              | Radiological Findings  |
| 2. Stiffness  | ++               | +                |                             |  | TC- 8800cells/cumm                                       | 1. Sub chondral sclerosis.                                   | TC- 8800cells/cumm | 1. Sub chondral sclerosis.   |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- |                             |  | P- 60  | 2. Soft tissue swelling.                                     | P- 57%             | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing<br><b>IMPRESSION:</b> |
| 4. Measurement  | +                | +                |                             |  | L- 38%   | 3. Joint space narrowing.                                    | L- 41%             |  |
| 5. Tenderness   | +                | +                |                             |  | E -2%  | <b>IMPRESSION:</b>   | E- 2%              |  |
| 6. Crepitation on movements   |                  |                  |                             |  | ESR  |  | ESR                |  |
| 7. Swelling   |                  |                  |                             |  | 1/2 hour-6 mm  |  | 1/2 hour-2 mm      |  |
| 8. Taking time to walk for 100 feet distance  | 69Sec            | 59Sec            | 1 hour- 12 mm               |  | 1 hour-4 mm  | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |                    |  |
|   |                  |                  | Hb%- 70%                    | <b>Urine:</b><br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscells | Hb%- 80%   |  |                    |  |
|   |                  |                  | Sugar (R)- 132 mgs%         |  | Sugar (R)- 116mgs%                                       |  |                    |  |
|   |                  |                  | Urea-30 mgs%                |  | Urea-24 mgs%   |  |                    |  |
|   |                  |                  | Cholesterol- 216 mgs%       |  | Cholesterol- 186 mgs%                                    |  |                    |  |
|   |                  |                  |                             |  |  | <b>Fair Response</b>   |                    |  |

|                      |   |   |                      |                  |  |   |  |
|----------------------|---|---|----------------------|------------------|--|---|--|
| <b>+Mild</b>         | - | <b>++Moderate</b>                           | -                    | <b>+++Severe</b> | <b>Good Response</b>                   | - | <b>Complete relief of signs and symptoms</b> |
| <b>Fair response</b> | - | <b>Partial relief of signs and symptoms</b> | <b>Poor response</b> | -                | <b>No relief of signs and symptoms</b> |   |  |





|   |                 |      |                 |      |   |                            |  |                                  |
|---|-----------------|------|-----------------|------|---|----------------------------|--|----------------------------------|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water                                       |                 |      |                 |      |   |                            | No.of days treated:<br><br>41                          |                                  |
| Diagnosis: Azhal Keel Vayu  |                 |      |                 |      |   |                            |  |                                  |
| Name: Pandiammal  |                 |      | Dietary         |      | Op No: 94157  | From : 20.11.2012          |  |                                  |
| Age/Sex : 50/F    Religion: HINDU   |                 |      | Habit: MIXED    |      | To:31.12.2012   |                            |  |                                  |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 2 Yrs                                      |                 |      |                 |      |   |                            |  |                                  |
|   | BeforeTreatment |      | After Treatment |      | Investigation   |                            |  |                                  |
|   | Right           | Left | Right           | Left | Before Treatment  |                            | After Treatment  |                                  |
|   |                 |      |                 |      | Blood   | Radiological Findings      | Blood  | Radiological Findings            |
| 1. Pain   | +               | +++  | -               | -    |   | 1. Sub chondral sclerosis. | TC- 8300 cells/cumm                                    | 1. Sub chondral sclerosis.       |
| 2. Stiffness  | -               | -    | -               | -    | TC- 7400 c/cumm   |                            |  |                                  |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> ) | -               | -    | -               | -    | P- 62%  | 2. Soft tissue swelling.   | P- 60%   | 2. Reduced Soft tissue swelling. |
| 4. Measurement  | -               | ++   | +               | +    | L-36%   | 3. Joint space narrowing.  | L-37%  | 3. Joint space narrowing         |
| 5. Tenderness   | -               | +    | -               | -    | E- 2%   | IMPRESSION:                | E-3%   | IMPRESSION:                      |
| 6. Crepitation on movements   |                 |      |                 |      | ESR   | OA CHANGES                 | ESR  |                                  |
| 7. Swelling   |                 |      |                 |      | 1/2 hour-14 mm  |                            | 1/2 hour-4 mm  |                                  |
| 8. Taking time to walk for 100 feet distance  | 54Sec           |      | 43Sec           |      | 1 hour- 28 mm   |                            | 1 hour- 8 mm   |                                  |
| Hb%- 68%  |                 |      |                 |      | Urine:<br>Albumin- Nil<br>Sugar - Nil<br>Deposit -2-4 pus cells | Hb%- 78%                   | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |                                  |
| Sugar (R)-132 mgs%  |                 |      |                 |      |   | Sugar (R)-120 mgs%         |  |                                  |
| Urea-30 mgs%  |                 |      |                 |      |   | Urea-26 mgs%               |  |                                  |
| Cholesterol-240 mgs%  |                 |      |                 |      |   | Cholesterol-186 mgs%       |  |                                  |
|   |                 |      |                 |      |   |                            |  | Good Response                    |

+Mild    - ++Moderate    - +++Severe Good Response    - Complete relief of signs and symptoms  
 Fair response    -    Partial relief of signs and symptoms    Poor response    - No relief of signs and symptoms

|  |                  |                  |                       |   |                                |                            |                    |  |
|--|------------------|------------------|-----------------------|---|--------------------------------|----------------------------|--------------------|--|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |                  |                  |                       |   |                                |                            |                    | No.of days treated:<br><br>43                                |
| Diagnosis: Azhal Keel Vayu   |                  |                  |                       |   |                                |                            |                    |  |
| Name: Kandasamy  |                  |                  | Dietary               |   | Op No: 395259 From: 23.11.2012 |                            |                    |  |
| Age/Sex : 52/M Religion: Hindu   |                  |                  | Habit: VEG            |   | To: 05.01.2012                 |                            |                    |  |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 3YEARS WITH SWELLING                         |                  |                  |                       |   |                                |                            |                    |  |
|  | BeforeTreatment  |                  | After Treatment       |   | Investigation                  |                            |                    |  |
|  | Right            | Left             | Right                 | Left  | Before Treatment               |                            | After Treatment    |  |
| 1. Pain  | +++              | +                | 44cm                  | 43cm  | Blood                          | Radiological Findings      | Blood              | Radiological Findings  |
| 2. Stiffness   | +                | +                |                       |   | TC- 8200cells/cumm             | 1. Sub chondral sclerosis. | TC- 8600cells/cumm | 1. Sub chondral sclerosis.                                   |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | I<br>45.5cm<br>- | I<br>44.5cm<br>- |                       |   | P- 68%                         | 2. Soft tissue swelling.   | P- 57%             | 2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |
| 4. Measurement   | +                | +                |                       |   | L- 30%                         | 3. Joint space narrowing.  | L- 41%             | IMPRESSION:  |
| 5. Tenderness  | +                | +                |                       |   | E -2%                          | IMPRESSION:                | E- 2%              |  |
| 6. Crepitation on movements  |                  |                  |                       |   | ESR                            |                            | ESR                |  |
| 7. Swelling  |                  |                  |                       |   | 1/2 hour-12 mm                 |                            | 1/2 hour-2 mm      |  |
| 8. Taking time to walk for 100 feet distance   | 69Sec            |                  |                       |   | 59Sec                          | 1 hour- 24 mm              |                    | 1 hour-4 mm  |
|  |                  |                  | Hb%- 72%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscells |                                | Hb%- 80%                   |                    |  |
|  |                  |                  | Sugar (R)- 128 mgs%   |   |                                | Sugar (R)- 116mgs%         |                    |  |
|  |                  |                  | Urea-34 mgs%          |   |                                | Urea-26 mgs%               |                    |  |
|  |                  |                  | Cholesterol- 182 mgs% |   |                                | Cholesterol- 176 mgs%      |                    |  |
|  |                  |                  |                       |   |                                |                            | Fair Response      |  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptoms

|  |  |                      |                 |       |   |                            |                      |   |
|--|--|----------------------|-----------------|-------|---|----------------------------|----------------------|---|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |  |                      |                 |       |   |                            |                      | No.of days treated:<br><br>43                                 |
| Diagnosis: Azhal Keel Vayu   |  |                      |                 |       |   |                            |                      |   |
| Name: Pappathi   |  |                      | Dietary         |       | Op No: 95288                      From:23.11.2012 |                            |                      |   |
| Age/Sex : 60/F      Religion: HINDU  |  |                      | Habit: MIXED    |       | To:05.01.2013                                     |                            |                      |   |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 8 Yrs   |  |                      |                 |       |   |                            |                      |   |
|  | BeforeTreatment  |                      | After Treatment |       | Investigation                                     |                            |                      |   |
|  | Right  | Left                 | Right           | Left  | Before Treatment                                  |                            | After Treatment      |   |
| 1. Pain<br>2. Stiffness<br>3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> )<br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling<br>8. Taking time to walk for 100 feet distance | +++  | +++                  | -               | -     | Blood   | Radiological Findings      | Blood                | Radiological Findings   |
|  | -  | -                    | -               | -     | TC- 8400 c/cumm                                   | 1. Sub chondral sclerosis. | TC- 8400 cells/cumm  | 1. Sub chondral sclerosis.                                    |
|  | -  | -                    | -               | -     | P- 54%  | 2. Soft tissue swelling.   | P- 58%               | 2. Reduced Soft tissue swelling.                              |
|  | -  | -                    | -               | -     |   |                            |                      | 3. Joint space narrowing                                      |
|  | ++   | ++                   | +               | +     | L-40%   | 3. Joint space narrowing.  | L-39%                | <b>IMPRESSION:</b>  |
|  | +  | +                    | -               | -     | E- 6%   | <b>IMPRESSION:</b>         | E-3%                 |   |
|  |  |                      |                 |       | ESR   | OA CHANGES                 | ESR                  |   |
|  |  |                      |                 |       | 1/2 hour-6 mm                                     |                            | 1/2 hour-4 mm        |   |
|  |  |                      |                 |       |   |                            |                      |   |
|  |  | 54Sec                |                 | 43Sec |   |                            |                      | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |
| 1 hour- 12 mm  |  |                      |                 |       | 1 hour- 8 mm                                      |                            |                      |   |
| Hb%- 78%   | <b>Urine:</b><br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells |                      |                 |       | Hb%- 84%  |                            |                      |   |
| Sugar (R)-126 mgs%   |  |                      |                 |       | Sugar (R)-126 mgs%                                |                            |                      |   |
| Urea-22 mgs%   |  |                      |                 |       | Urea-20 mgs%                                      |                            |                      |   |
| Cholesterol-186 mgs%   |  | Cholesterol-180 mgs% |                 |       |   |                            |                      |   |
|  |  |                      |                 |       |   |                            | <b>Good Response</b> |   |

+Mild                      -                      ++Moderate                      -                      +++Seve Good Response                      - Complete relief of signs and symptoms  
 Fair response                      -                      Partial relief of signs and symptoms                      Poor response                      - No relief of signs and symptoms

|  |                 |      |                 |      |                       |   |                       |   |                                  |                           |        |
|--|-----------------|------|-----------------|------|-----------------------|---|-----------------------|---|----------------------------------|---------------------------|--------|
| Drug : Mutsanganilai Chooranam 1.gm bd with Luke Warm Water  |                 |      |                 |      |                       |   |                       | No.of days treated:<br><br>43                         |                                  |                           |        |
| Diagnosis: Azhal Keel Vayu   |                 |      |                 |      |                       |   |                       |   |                                  |                           |        |
| Name: Boominathan  |                 |      | Dietary         |      | Op No: 95368          |   | From: 23.11.2012      |   |                                  |                           |        |
| Age/Sex : 58/M Religion: Hindu   |                 |      | Habit: MIXED    |      | To: 05.01.2013        |   |                       |   |                                  |                           |        |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 3 Yrs  |                 |      |                 |      |                       |   |                       |   |                                  |                           |        |
|  | BeforeTreatment |      | After Treatment |      | Investigation         |   |                       |   |                                  |                           |        |
|  | Right           | Left | Right           | Left | Before Treatment      |   | After Treatment       |   |                                  |                           |        |
| 1. Pain  | ++              | +    | -               | -    | Blood                 | Radiological Findings   | Blood                 | Radiological Findings                                 |                                  |                           |        |
| 2. Stiffness   | +               | +    |                 |      | TC- 7800cells/cumm    | 1. Sub chondral sclerosis.                                    | TC- 8000cells/cumm    |   | 1. Sub chondral sclerosis.       |                           |        |
| 3. Limitation of movements<br>(30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | -               | -    |                 |      | P- 62%                | 2. Soft tissue swelling.                                      | P- 57%                |   | 2. Reduced Soft tissue swelling. |                           |        |
|  | -               | -    |                 |      |                       |   |                       |   | 3. Joint space narrowing         |                           |        |
|  | +               | +    |                 |      |                       |   |                       |   | IMPRESSION:                      |                           |        |
|  | +               | +    |                 |      |                       |   |                       |   |                                  |                           |        |
| 4. Measurement   |                 |      |                 |      | +                     | -   | L- 36%                |   |                                  | 3. Joint space narrowing. | L- 41% |
| 5. Tenderness  |                 |      |                 |      | -                     | -   | E -2%                 |   |                                  | IMPRESSION:               | E- 2%  |
| 6. Crepitation on movements  |                 |      |                 |      | ESR                   |   | ESR                   |   |                                  |                           |        |
| 7. Swelling  |                 |      |                 |      | 1/2 hour-12 mm        |   | 1/2 hour-2 mm         |   |                                  |                           |        |
| 8. Taking time to walk for 100 feet distance   | 69Sec           |      | 59Sec           |      | 1 hour- 26 mm         |   | 1 hour-4 mm           | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |                                  |                           |        |
|  |                 |      |                 |      | Hb%- 74%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 2-4 puscells | Hb%- 84%              |   |                                  |                           |        |
|  |                 |      |                 |      | Sugar (R)- 128 mgs%   |   | Sugar (R)- 116mgs%    |   |                                  |                           |        |
|  |                 |      |                 |      | Urea-30 mgs%          |   | Urea-26 mgs%          |   |                                  |                           |        |
|  |                 |      |                 |      | Cholesterol- 186 mgs% |   | Cholesterol- 176 mgs% |   |                                  |                           |        |
|  |                 |      |                 |      |                       |   | Fair Response         |   |                                  |                           |        |



+Mild    ++Moderate    -    +++Severe Good Response - Complete relief of signs and symptoms

Fair response    - Partial relief of signs and symptoms    Poor response    - No relief of signs and symptoms

|   |                 |      |                 |                            |                      |  |                      |                           |   |
|---|-----------------|------|-----------------|----------------------------|----------------------|--|----------------------|---------------------------|---|
| Drug : Mutsngan ilai chooranam 1gm bd with Luke warm Water  |                 |      |                 | Diagnosis: Azhal Keel Vayu |                      |  |                      | No.of days treated:<br>50 |   |
| Name:Krishnan Age/Sex : 60/M Religion: Hindu  |                 |      |                 | Dietary Habit: Veg         |                      | IP No: 1864 From: 07.06.2012 To:27.07.2012                           |                      |                           |   |
| Complaints and Duration:. PAIN IN BOTH KNEE JOINT SINCE 9 MONTHS WITH SWELLING                    |                 |      |                 |                            |                      |  |                      |                           |   |
|   | BeforeTreatment |      | After Treatment |                            | Investigation        |  |                      |                           |   |
|   | Right           | Left | Right           | Left                       | Before Treatment     |  | After Treatment      |                           |   |
| 1. Pain   | ++              | -    | -               | -                          | Blood                | Radiological Findings  | Blood                | Radiological Findings     |   |
| 2. Stiffness  | -               | -    | -               |                            | TC-8200 cells/cumm   | 1. Sub chondral sclerosis.   | TC-8200 cells/cumm   |                           | 1. Sub chondral sclerosis.                            |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | 38cm            | 37cm | 37cm            |                            | P- 63%               | 2. Soft tissue swelling.   | P- 63%               |                           | 2. Reduced Soft tissue swelling.                      |
| 4. Measurement  | -               |      |                 |                            | L- 35%               | 3. Joint space narrowing.  | L- 36%               |                           | 3. Joint space narrowing                              |
| 5. Tenderness   | +               | ++   | +               |                            | E -2%                |  | E- 1%                |                           |   |
| 6. Crepitation on movements   | +               | +    | -               |                            | ESR                  |  | ESR                  |                           |   |
| 7. Swelling   |                 |      |                 |                            | 1/2 hour- 18mm       |  | 1/2 hour-10 mm       |                           |   |
| 8. Taking time to walk for 100 feet distance  | 53Sec           |      | 48Sec           |                            | 1 hour-43 mm         | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- plenty of pus cells | 1 hour-25 mm         |                           | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |
|   |                 |      |                 |                            | Hb%- 76%             |  | Hb%- 77%             |                           |   |
|   |                 |      |                 |                            | Sugar (R)-92 mgs%    |  | Sugar (R)- 80mgs%    |                           |   |
|   |                 |      |                 |                            | Urea-19 mgs%         |  | Urea-19 mgs%         |                           |   |
|   |                 |      |                 |                            | Cholesterol-144 mgs% |  | Cholesterol-146 mgs% |                           |   |
|   |                 |      |                 |                            |                      |  | Good Response        |                           |   |
|   |                 |      |                 |                            |                      |  |                      |                           |   |

+Mild    -    ++Moderate    -    +++Severe Good Response - Complete relief of signs and symptoms

Fair response    -    Partial relief of signs and symptoms    Poor response    - No relief of signs and symptom

| Drug : Mutsngan ilai chooranam 1gm bd with Luke warm Water  |                      |                |                    |                       | Diagnosis: Azhal Keel Vayu                                     |                            |  |                                  | No.of days treated:<br>50 |
|---|----------------------|----------------|--------------------|-----------------------|--|----------------------------|--|----------------------------------|---------------------------|
| Name: Mariarose<br>Christian  |                      | Age/Sex : 55/F | Religion:          | Dietary<br>Habit: Veg | IP No: 1870<br>27.07.2012                                      |                            | From: 07.06.2012                                       | To:                              |                           |
| Complaints and Duration: PAIN IN RIGHT KNEE JOINT SINCE 6 MONTHS                                  |                      |                |                    |                       |  |                            |  |                                  |                           |
|   | BeforeTreatment      |                | After<br>Treatment |                       | Investigation  |                            |  |                                  |                           |
|   | Right                | Left           | Right              | Left                  | Before Treatment   |                            | After Treatment  |                                  |                           |
| 1. Pain   | ++                   | +              | -                  | -                     | Blood  | Radiological Findings      | Blood  | Radiological Findings            |                           |
|   | -                    | -              | -                  | -                     |  |                            |  | 1. Sub chondral sclerosis.       |                           |
| 2. Stiffness  | -                    | -              | -                  | -                     | TC-8600 c/cumm   | 1. Sub chondral sclerosis. | TC- 8900cells/cumm                                     | 1. Sub chondral sclerosis.       |                           |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> ) | +                    | -              | -                  | -                     | P- 60%   | 2. Soft tissue swelling.   | P- 62%   | 2. Reduced Soft tissue swelling. |                           |
|   | +                    | +              | +                  | +                     |  | 3. Joint space narrowing.  |  | 3. Joint space narrowing         |                           |
| 4. Measurement  | -                    | -              | -                  | -                     | L-32%  |                            | L-34%  |                                  |                           |
| 5. Tenderness   |                      |                |                    |                       | E- 8%  |                            | E-4%   |                                  |                           |
| 6. Crepitation on movements   |                      |                |                    |                       | ESR  |                            | ESR  |                                  |                           |
| 7. Swelling   |                      |                |                    |                       | 1/2 hour-20 mm   |                            | 1/2 hour-8 mm  |                                  |                           |
| 8. Taking time to walk for 100 feet distance  | 58Sec                |                | 49Sec              |                       |  |                            |  |                                  |                           |
| 1 hour- 55 mm   |                      |                |                    |                       |  | 1 hour- 20 mm              |  |                                  |                           |
| Hb%- 74%  |                      |                |                    |                       | Urine:<br>Albumin- Nil<br>Sugar - Nil<br>Deposit – 1-2 puscels | Hb%- 79%                   | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |                                  |                           |
| Sugar (R)- 130mgs%  |                      |                |                    |                       |  | Sugar (R)-125 mgs%         |  |                                  |                           |
| Urea-26 mgs%  |                      |                |                    |                       |  | Urea-21 mgs%               |  |                                  |                           |
| Cholesterol-155 mgs%  | Cholesterol-156 mgs% |                |                    |                       |  |                            |  |                                  |                           |
|   |                      |                |                    |                       |  |                            |  | Good Response                    |                           |

+Mild  
symptoms

-

++Moderate

Poor response

- +++Severe

No relief of signs and symptom

Good Response

- Complete relief of signs and symptoms

Fair response

-

Partial relief of signs and

|   |                 |      |                 |                      |   |  |  |                     |   |                           |
|---|-----------------|------|-----------------|----------------------|---|--|--|---------------------|---|---------------------------|
| Drug : Mutsngan ilai chooranam 1gm bd with Luke warm Water  |                 |      |                 |                      | Diagnosis: Azhal Keel Vayu                  |  |  |                     |   | No.of days treated:<br>46 |
| Name:Athiammal Age/Sex : 60/F Religion: Hindu   |                 |      |                 | Dietary Habit: MIXED | IP No: 1929 From: 15.06.2012 To: 01.08.2012 |  |  |                     |   |                           |
| Complaints and Duration:. PAIN IN RIGHT KNEE JOINT SINCE 6 MONTHS                                 |                 |      |                 |                      |   |  |  |                     |   |                           |
|   | BeforeTreatment |      | After Treatment |                      | Investigation                               |  |  |                     |   |                           |
|   | Right           | Left | Right           | Left                 | Before Treatment                            |  |  | After Treatment     |   |                           |
| 1. Pain   | ++              | +    | +               | +                    | Blood                                       | Radiological Findings                                |  | Blood               | Radiological Findings                                 |                           |
| 2. Stiffness  | -               | -    | -               | -                    | TC-8400 cells/cumm                          | 1. Sub chondral sclerosis.                           |  | TC-8400cells/cumm   | 1. Sub chondral sclerosis.                            |                           |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) | -               | -    | -               | -                    | P- 61%                                      | 2. Soft tissue swelling.                             |  | P- 67%              | 2. Reduced Soft tissue swelling.                      |                           |
| 4. Measurement  | +               | +    | +               | +                    | L- 33%                                      | 3. Joint space narrowing.                            |  | L- 30%              | 3. Joint space narrowing                              |                           |
| 5. Tenderness   | -               | -    | -               | -                    | E -6%                                       |  |  | E- 3%               |   |                           |
| 6. Crepitation on movements   |                 |      |                 |                      | ESR   |  |  | ESR                 |   |                           |
| 7. Swelling   |                 |      |                 |                      | 1/2 hour-8 mm                               |  |  | 1/2 hour-5 mm       |   |                           |
| 8. Taking time to walk for 100 feet distance  | 64Sec           |      | 57Sec           |                      | 1 hour-15 mm                                | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- NAD |  | 1 hour-7 mm         | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |                           |
|   |                 |      |                 |                      | Hb%- 67%                                    |  |  | Hb%- 71%            |   |                           |
|   |                 |      |                 |                      | Sugar (R)-114 mgs%                          |  |  | Sugar (R)-118 mgs%  |   |                           |
|   |                 |      |                 |                      | Urea-17 mgs%                                |  |  | Urea-19 mgs%        |   |                           |
|   |                 |      |                 |                      | Cholesterol-177 mgs%                        |  |  | Cholesterol-171mgs% |   |                           |
|   |                 |      |                 |                      |   |  |  |                     | Good Response   |                           |
| Drug : Mutsngan ilai chooranam 1gm bd with Luke warm Water  |                 |      |                 |                      | Diagnosis: Azhal Keel Vayu                  |  |  |                     |   | No.of days treated:46     |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptom

|   |  |                  |      |                 |      |  |  |  |                 |   |  |  |  |  |  |
|---|--|------------------|------|-----------------|------|--|--|--|-----------------|---|--|--|--|--|--|
| Name: Natarajan   |  | Age/Sex : 60/M   |      | Religion:       |      | Dietary<br>Habit: MIXED                  |  | IP No: 1927<br>To:01.08.2012                           |                 | From: 15.06.2012  |  |  |  |  |  |
| Complaints and Duration: PAIN IN RIGHT KNEE JOINT SINCE 2 YEAR  |  |                  |      |                 |      |  |  |  |                 |   |  |  |  |  |  |
|   |  | Before Treatment |      | After Treatment |      | Investigation                            |  |  |                 |   |  |  |  |  |  |
|   |  | Right            | Left | Right           | Left | Before Treatment                         |  |  | After Treatment |   |  |  |  |  |  |
| 1. Pain<br>2. Stiffness<br>3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> )<br><br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling<br><br>8. Taking time to walk for 100 feet distance |  | ++               | +    | -               | -    | Blood                                    |  | Radiological Findings                                  |                 | Blood   |  | Radiological Findings  |  |  |  |
|   |  | -                | -    | -               | -    | TC- 10400/cumm<br>P- 64%                 |  | 1. Sub chondral sclerosis.<br>2. Soft tissue swelling. |                 | TC- 9900 cells/cumm   |  | 1. Sub chondral sclerosis.<br>2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |  |  |  |
|   |  | -                | -    | -               | -    |  |  |  |                 | P- %63  |  |  |  |  |  |
|   |  | +                | -    | -               | -    | L-24%<br>E- 12%<br>ESR<br>1/2 hour-10 mm |  | 3. Joint space narrowing.                              |                 | L-31%   |  |  |  |  |  |
|   |  | +                | +    | +               | +    |  |  |  |                 | E-6%  |  |  |  |  |  |
|   |  | -                | -    | -               | -    |  |  |  |                 | ESR   |  |  |  |  |  |
|   |  |                  |      |                 |      |  |  |  |                 | 1/2 hour-6 mm   |  |  |  |  |  |
|   |  | 57Sec            |      |                 |      | 49Sec                                    |  | 1 hour- 20 mm<br>Hb%- 78%                              |                 |   |  | 1 hour- 10 mm  |  |  |  |
|   |  |                  |      |                 |      |  |  |  |                 |   |  | 1 hour- 10 mm  |  |  |  |
|   |  |                  |      |                 |      |  |  | Sugar (R)-138 mgs%                                     |                 | Urine:<br>Albumin- Nil<br>Sugar - Nil<br>Deposit -1-2 pus cells |  | Hb%- 81%   |  | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |  |
|   |  |                  |      |                 |      |  |  | Urea-24 mgs%   |                 |   |  | Sugar (R)-131 mgs%   |  |  |  |
|   |  |                  |      |                 |      |  |  | Cholesterol-126 mgs%                                   |                 |   |  | Urea-28 mgs%   |  |  |  |
|   |  |                  |      |                 |      |  |  |  |                 |   |  | Cholesterol-133 mgs%   |  |  |  |
|   |  |                  |      |                 |      |  |  |  |                 | Fair Response   |  |  |  |  |  |

**+Mild**                      -                      **++Moderate**                      -                      **+++Severe Good Response**                      - **Complete relief of signs and symptoms**  
**Fair response**                      -                      **Partial relief of signs and symptoms**                      **Poor response**                      - **No relief of signs and symptom**

|   |  |  |  |                                 |  |                            |   |                                  |                           |
|---|--|--|--|---------------------------------|--|----------------------------|---|----------------------------------|---------------------------|
| Drug : Mutsngan ilai chooranam 1gm bd with Luke warm Water  |  |  |  |                                 | Diagnosis: Azhal Keel Vayu                                     |                            |   |                                  | No.of days treated:<br>38 |
|   |  |  |  | Dietary Habit: MIXED            | IP No: 2106 From: 28.06.2012<br>To:06.08.2012                  |                            |   |                                  |                           |
| Name:Soosaiah Age/Sex : 55/M Religion: Hindu  |  |  |  |                                 |  |                            |   |                                  |                           |
| Complaints and Duration:. PAIN IN RIGHT KNEE JOINT SINCE 2YEARS WITH SWELLING                     |  |  |  |                                 |  |                            |   |                                  |                           |
|   | BeforeTreatment                              |  | After Treatment                          |                                 | Investigation  |                            |   |                                  |                           |
|   | Right  | Left                                     | Right                                    | Left                            | Before Treatment   |                            | After Treatment                                       |                                  |                           |
| 1. Pain   | +++<br><br>++<br>II<br>43.6cm<br>-<br>+<br>+ | +<br>-<br>II<br>37cm<br>-<br>-<br>-<br>- | ++<br>+<br>I<br>40cm<br>-<br>+<br>-<br>- | -<br>-<br>+<br>-<br>+<br>-<br>- | Blood  | Radiological Findings      | Blood   | Radiological Findings            |                           |
| 2. Stiffness  |  |  |  |                                 | TC-9,600 cells/cumm  | 1. Sub chondral sclerosis. | TC-10,200 cells/cumm                                  | 1. Sub chondral sclerosis.       |                           |
| 3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> ) |  |  |  |                                 | P- 64%   | 2. Soft tissue swelling.   | P- 66%  | 2. Reduced Soft tissue swelling. |                           |
| 4. Measurement  |  |  |  |                                 |  | 3. Joint space narrowing.  |   | 3. Joint space narrowing         |                           |
| 5. Tenderness   |  |  |  |                                 | L- 26%   |                            | L- 31%  |                                  |                           |
| 6. Crepitation on movements   |  |  |  |                                 | E -10%   |                            | E- 3%   |                                  |                           |
| 7. Swelling   |  |  |  |                                 | ESR  |                            | ESR   |                                  |                           |
|   |  |  |  |                                 | 1/2 hour-7 mm  |                            | 1/2 hour-4 mm   |                                  |                           |
| 8. Taking time to walk for 100 feet distance  | 50Sec  |  | 46Sec                                    | 1 hour-10 mm                    |  | 1 hour-6 mm                | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |                                  |                           |
|   |  |  |  | Hb%- %82                        |  | Hb%- 82%                   |   |                                  |                           |
|   |  |  |  | Sugar (R)- 103mgs%              | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 3-5 pus cells | Sugar (R)-117 mgs%         |   |                                  |                           |
|   |  |  |  | Urea-35 mgs%                    |  | Urea-32 mgs%               |   |                                  |                           |
|   |  |  |  | Cholesterol-174 mgs%            |  | Cholesterol-165 mgs%       |   |                                  |                           |
|   |  |  |  |                                 |  |                            | Poor Response   |                                  |                           |

|   |                 |       |                            |      |                            |   |   |  |  |                           |
|---|-----------------|-------|----------------------------|------|----------------------------|---|---|--|--|---------------------------|
| Drug : Mutsngan ilai chooranam 1gm bd with Luke warm Water  |                 |       |                            |      |                            | Diagnosis: Azhal Keel Vayu  |   |  |  | No.of days treated:<br>33 |
| Name: Appas<br>Muslim   |                 |       | Age/Sex :56/M<br>Religion: |      | Dietary<br>Habit:<br>MIXED | IP No: 2286<br>26.09.2012   |   | From: 23.08.2012   | To:  |                           |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 5 YEARS  |                 |       |                            |      |                            |   |   |  |  |                           |
|   | BeforeTreatment |       | After Treatment            |      | Investigation              |   |   |  |  |                           |
|   | Right           | Left  | Right                      | Left | Before Treatment           |   |   | After Treatment  |  |                           |
| 1. Pain<br>2. Stiffness<br>3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> )<br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling<br><br>8. Taking time to walk for 100 feet distance | +++             | +     | +                          | -    | Blood                      | Radiological Findings   |   | Blood  | Radiological Findings                                  |                           |
|   | -               | -     | -                          | -    | TC- 9900 c/cumm<br>P- 61%  | 1. Sub chondral sclerosis.<br>2. Soft tissue swelling.<br><br>3. Joint space narrowing.<br><b>IMPRESSION:</b> | TC-10,100 cells/cumm<br>P- 64%<br><br>L-35%<br>E-1%<br>ESR<br>1/2 hour-5 mm | 1. Sub chondral sclerosis.<br>2. Reduced Soft tissue swelling.<br>3. Joint space narrowing<br><b>IMPRESSION:</b> |  |                           |
|   | -               | -     | -                          | -    |                            |   |   |  |  |                           |
|   | -               | -     | -                          | -    |                            |   |   |  |  |                           |
|   | +               | +     | +                          | -    |                            |   |   |  |  |                           |
|   | ++              | -     | +                          | -    |                            |   |   |  |  |                           |
|   | 60Sec           | 47Sec |                            |      |                            | Urine:<br>Albumin- Nil<br>Sugar - Nil<br>Deposit – 1-2 pus cells  |   |  | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |                           |
|   |                 |       |                            |      | 1 hour- 10 mm              |   |   |  |  |                           |
|   |                 |       |                            |      | Hb%- 73%                   |   |   |  |  |                           |
|   |                 |       |                            |      | Sugar (R)- 97mgs%          |   |   |  |  |                           |
|   |                 |       |                            |      | Urea-33 mgs%               |   |   |  |  |                           |
|   |                 |       |                            |      | Cholesterol-170 mgs%       |   |   |  |  |                           |
|   |                 |       |                            |      |                            |   |   |  |  |                           |
|   | Good Response   |       |                            |      |                            |   |   |  |  |                           |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptom

| Drug Mutsngan ilai chooranam 1gm bd with Luke warm Water  |  |  |  | Diagnosis: Azhal Keel Vayu                               |   |                            |  | No.of days treated:<br>19        |
|---|--|--|--|--|---|----------------------------|--|----------------------------------|
| Name:Ramachandran   |  | Age/Sex : 60/M   | Dietary Habit: MIXED                                       | IP No: 2653<br>To:30.10.2012                             |   | From: 11.10.2012           |  |                                  |
| Complaints and Duration:. PAIN IN RIGHT KNEE JOINT SINCE 5YEARS WITH SWELLING   |  |  |  |  |   |                            |  |                                  |
| 1. Pain<br><br>2. Stiffness<br>3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> )<br><br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling<br><br><br>8. Taking time to walk for 100 feet distance | BeforeTreatment  |  | After Treatment  |  | Investigation   |                            |  |                                  |
|   | Right  | Left   | Right  | Left   | Before Treatment  |                            | After Treatment  |                                  |
|   | +++<br><br>++<br><b>II</b><br><b>43.6cm</b><br>-<br><br>++<br>++ | +<br><br>++<br><b>II</b><br><b>37cm</b><br>-<br><br>+<br>+ | +++<br><br>+<br><b>I</b><br><b>37cm</b><br>-<br><br>+<br>- | -<br><br>+<br><b>I</b><br><b>36cm</b><br>-<br><br>+<br>- | Blood   | Radiological Findings      | Blood  | Radiological Findings            |
|   |  |  |  |  | TC-10,600 cells/cumm  | 1. Sub chondral sclerosis. | TC-10,200 cells/cumm   | 1. Sub chondral sclerosis.       |
|   |  |  |  |  | P- 64%  | 2. Soft tissue swelling.   | P- 66%   | 2. Reduced Soft tissue swelling. |
|   |  |  |  |  |   | 3. Joint space narrowing.  |  | 3. Joint space narrowing         |
|   |  |  |  |  | L- 26%  |                            | L- 31%   |                                  |
|   |  |  |  |  | E -10%  |                            | E- 3%  |                                  |
|   |  |  |  |  | ESR   |                            | ESR  |                                  |
|   |  |  |  |  | 1/2 hour-7 mm   |                            | 1/2 hour-4 mm  |                                  |
|   | 50Sec  |  | 46Sec  | 1 hour-10 mm   |   | 1 hour-6 mm                |  |                                  |
|   |  |  |  | Hb%- %82   |   | Hb%- 82%                   | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit- NAD |                                  |
|   |  |  |  | Sugar (R)- 103mgs%                                       | <b>Urine:</b><br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 3-5 pus cells | Sugar (R)-117 mgs%         |  |                                  |
|   |  |  |  | Urea-35 mgs%   |   | Urea-33 mgs%               |  |                                  |
|   |  |  |  | Cholesterol-174 mgs%                                     |   | Cholesterol-165 mgs%       |  |                                  |
|   |  |  |  |  |   |                            |  | Poor Response                    |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptom

|   |                 |               |                 |                            |                      |   |                      |   |
|---|-----------------|---------------|-----------------|----------------------------|----------------------|---|----------------------|---|
| Drug : Mutsngan ilai chooranam 1gm bd with Luke warm Water  |                 |               |                 | Diagnosis: Azhal Keel Vayu |                      |   |                      | No.of days treated:<br>39                                     |
| Name: Kaali   |                 | Age/Sex :55/M | Religion:       | Dietary Habit: MIXED       | IP No: 3812          | From: 08.11.2012  | To:                  |   |
| Hindu   |                 |               |                 |                            | 17.12.2012           |   |                      |   |
| Complaints and Duration: PAIN IN RIGHT KNEE JOINT SINCE 4 YEARS   |                 |               |                 |                            |                      |   |                      |   |
|   | BeforeTreatment |               | After Treatment |                            | Investigation        |   |                      |   |
|   | Right           | Left          | Right           | Left                       | Before Treatment     |   | After Treatment      |   |
| 1. Pain<br>2. Stiffness<br>3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> )<br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling<br><br>8. Taking time to walk for 100 feet distance | +++             | ++            | +               | -                          | Blood                | Radiological Findings   | Blood                | Radiological Findings   |
|   | -               | -             | -               | -                          | TC- 8900 c/cumm      | 1. Sub chondral sclerosis.<br>2. Soft tissue swelling.<br><br>3. Joint space narrowing.<br><b>IMPRESSION:</b> | TC-10,100 cells/cumm | 1. Sub chondral sclerosis.                                    |
|   | -               | -             | -               | -                          | P- 61%               |   | P- 64%               | 2. Reduced Soft tissue swelling.                              |
|   | -               | -             | -               | -                          | L-32%                |   | L-35%                | 3. Joint space narrowing                                      |
|   | +               | +             | +               | +                          | E- 7%                |   | E-1%                 | <b>IMPRESSION:</b>  |
|   | +               | -             | -               | -                          | ESR                  |   | ESR                  |   |
|   |                 |               |                 |                            | 1/2 hour-5 mm        |   | 1/2 hour-5 mm        |   |
|   | 60Sec           |               | 47Sec           |                            | 1 hour- 10 mm        | <b>Urine:</b><br>Albumin- Nil<br>Sugar - Nil<br>Deposit – 1-2 pus cells                                       | 1 hour- 10mm         | <b>Urine:</b><br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD |
|   |                 |               |                 |                            | Hb%- 73%             |   | Hb%- 75%             |   |
|   |                 |               |                 |                            | Sugar (R)- 97mgs%    |   | Sugar (R)-105 mgs%   |   |
|   |                 |               |                 |                            | Urea-33 mgs%         |   | Urea-31 mgs%         |   |
|   |                 |               |                 |                            | Cholesterol-170 mgs% |   | Cholesterol-178 mgs% |   |
|   |                 |               |                 |                            |                      |   |                      | <b>Good Response</b>  |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptom



|   |                 |                |                 |                         |   |   |                    |  |                           |
|---|-----------------|----------------|-----------------|-------------------------|---|---|--------------------|--|---------------------------|
| Drug : Mutsngan ilai chooranam 1gm bd with Luke warm Water  |                 |                |                 |                         | Diagnosis: Azhal Keel Vayu                                    |   |                    |  | No.of days treated:<br>36 |
| Name:Nallathaayee   |                 | Age/Sex : 60/F | Religion:       | Dietary<br>Habit: MIXED | IP No:3959<br>To:26.12.2012                                   | From:20.11.2012   |                    |  |                           |
| Complaints and Duration:. PAIN IN RIGHT KNEE JOINT SINCE 5 MONTHS WITH SWELLING   |                 |                |                 |                         |   |   |                    |  |                           |
| 1. Pain<br><br>2. Stiffness<br>3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ,↑60 <sup>0</sup> )<br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling<br><br><br><br><br><br><br><br>8. Taking time to walk for 100 feet distance | BeforeTreatment |                | After Treatment |                         | Investigation   |   |                    |  |                           |
|   | Right           | Left           | Right           | Left                    | Before Treatment  |   | After Treatment    |  |                           |
|   | ++              | ++             | -               | -                       | Blood   | Radiological Findings   | Blood              | Radiological Findings  |                           |
|   | -               | -              | -               | -                       | TC- 9800cells/cumm<br>P- 53%                                  | 1. Sub chondral sclerosis.<br>2. Soft tissue swelling.<br><br>3. Joint space narrowing. | TC- 9700cells/cumm | 1. Sub chondral sclerosis.<br>2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |                           |
|   | I               | I              | -               | -                       |   |   | P- 61%             |  |                           |
|   | 38cm            | 39.5cm         | 37cm            | 38cm                    | L- 35%  |   | L- 35%             |  |                           |
|   | -               | -              | -               | -                       | E -12%  |   | E- 4%              |  |                           |
|   | +               | ++             | +               | +                       | ESR   |   | ESR                |  |                           |
|   | +               | +              | -               | -                       | 1/2 hour-24 mm  |   | 1/2 hour-10 mm     |  |                           |
|   | 65Sec           |                | 47Sec           |                         | 1 hour-40 mm  |   | 1 hour-16 mm       |  |                           |
|   |                 |                |                 |                         | Hb%- 83%  | Hb%- 84%  |                    |  |                           |
|   |                 |                |                 |                         | Sugar (R)-118 mgs%  | Sugar (R)- 113mgs%  |                    |  |                           |
|   |                 |                |                 |                         | Urea-31 mgs%  | Urea-29 mgs%  |                    |  |                           |
|   |                 |                |                 |                         | Cholesterol-182mgs%   | Cholesterol-176 mgs%  |                    |  |                           |
|   |                 |                |                 |                         | Urine:<br>Albumin- Nil<br>Sugar -Nil<br>Deposit- 1-2 puscells |   |                    | Good Response  |                           |

**+Mild**                    -                    **++Moderate**                    -                    **+++Severe** **Good Response**    - **Complete relief of signs and symptoms**  
**Fair response**                    -                    **Partial relief of signs and symptoms** **Poor response**                    - **No relief of signs and symptom**

| Drug : Mutsngan ilai chooranam 1gm bd with Luke warm Water  |                 |                |                 |                         | Diagnosis: Azhal Keel Vayu   |  |                      |  | No.of days treated:<br>32 |
|---|-----------------|----------------|-----------------|-------------------------|------------------------------|--|----------------------|--|---------------------------|
| Name: Chandrammal   |                 | Age/Sex : 60/F | Religion:       | Dietary<br>Habit: MIXED | IP No: 2855<br>To:04.02.2013 |  | From: 03.01.2013     |  |                           |
| Complaints and Duration: PAIN IN BOTH KNEE JOINT SINCE 8 MONTHS WITH SWELLING   |                 |                |                 |                         |                              |  |                      |  |                           |
|   | BeforeTreatment |                | After Treatment |                         | Investigation                |  |                      |  |                           |
|   | Right           | Left           | Right           | Left                    | Before Treatment             |  | After Treatment      |  |                           |
| 1. Pain<br>2. Stiffness<br>3. Limitation of movements (30 <sup>0</sup> ,30 <sup>0</sup> -60 <sup>0</sup> ↑ 60 <sup>0</sup> )<br>4. Measurement<br>5. Tenderness<br>6. Crepitation on movements<br>7. Swelling<br><br>8. Taking time to walk for 100 feet distance | +++             | +++            | +               | +                       | Blood                        | Radiological Findings                                  | Blood                | Radiological Findings  |                           |
|   | +               | +              | -               | -                       | TC-10,00 c/cumm              | 1. Sub chondral sclerosis.<br>2. Soft tissue swelling. | TC-10,100 cells/cumm | 1. Sub chondral sclerosis.<br>2. Reduced Soft tissue swelling.<br>3. Joint space narrowing |                           |
|   | I               | I              | -               | -                       |                              |  | P- 65%               |  |                           |
|   | 43.5cm          | 43.2cm         | 42.8cm          | 43cm                    | L-34%                        | 3. Joint space narrowing.                              | L-32%                |  |                           |
|   | -               |                |                 |                         | E- 3%                        | E-3%   |                      |  |                           |
|   | +               | ++             | +               | +                       | ESR                          | ESR  |                      |  |                           |
|   | +               | +              | +               | +                       | 1/2 hour- 16mm               | 1/2 hour-4 mm  |                      |  |                           |
|   | 69Sec           |                | 59Sec           |                         |                              | Urine:<br>Albumin- Nil<br>Sugar - Nil<br>Deposit - NAD |                      | Urine:<br>Albumin: Nil<br>Sugar : Nil<br>Deposit : NAD                                     |                           |
|   |                 |                |                 |                         | 1 hour- 30 mm                |  | 1 hour- 8 mm         |  |                           |
|   |                 |                |                 |                         | Hb%- 75%                     |  | Hb%-78 %             |  |                           |
|   |                 |                |                 |                         | Sugar (R)-136 mgs%           |  | Sugar (R)-128 mgs%   |  |                           |
|   |                 |                |                 |                         | Urea-29 mgs%                 |  | Urea-24 mgs%         |  |                           |
|   |                 |                |                 |                         | Cholesterol-197 mgs%         |  | Cholesterol-191 mgs% |  |                           |
|   |                 |                |                 |                         |                              |  |                      | Fair Response  |                           |

+Mild - ++Moderate - +++Severe Good Response - Complete relief of signs and symptoms  
 Fair response - Partial relief of signs and symptoms Poor response - No relief of signs and symptom